



## Picasso Lighting

### IES INDOOR REPORT

PHOTOMETRIC FILENAME : COB-PD-4-D10-I10-40-80-FWD-XX-WH-CW-LVPW.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] LLIA002143-001

[TESTLAB] LightLab International Allentown, LLC

[ISSUE DATE] 6/21/2023

[MANUFAC] Picasso Lighting Industries, LLC

[LUMCAT] COB-PD-4-D10-I10-40-80-FWD-XX-WH-CW-LVPW

[LUMINAIRE] Pendant mounted, extruded black painted aluminum housing, white

[MORE] painted aluminum LED tray, frosted plastic insert in upper enclosure,

[MORE] translucent white plastic lower enclosure.

[LAMP] 192 white LEDs, 24 LEDs each on 4 boards in indirect section and

[MORE] 4 boards in direct section.

[BALLAST]

[OTHER] 120.0Vac, 60.00Hz, 81.31W, 0.976PF, 14.6%THD(i)

[OTHER] This file was modified from COB-PD-4-D5-I5-30-80-FWD-XX-WH-CW-LVPW.

[MORE] Lamp lumens value was set to -1

### CHARACTERISTICS

|                                 |                     |
|---------------------------------|---------------------|
| Lumens Per Lamp                 | N.A. (absolute)     |
| Total Lamp Lumens               | N.A. (absolute)     |
| Luminaire Lumens                | 8000                |
| Total Luminaire Efficiency      | N.A.                |
| Luminaire Efficacy Rating (LER) | 98                  |
| Total Luminaire Watts           | 81.31               |
| Ballast Factor                  | 1.00                |
| CIE Type                        | General Diffuse     |
| Spacing Criterion (0-180)       | N.A.                |
| Spacing Criterion (90-270)      | N.A.                |
| Spacing Criterion (Diagonal)    | N.A.                |
| Basic Luminous Shape            | Rectangular w/Sides |
| Luminous Length (0-180)         | 4.00 ft             |
| Luminous Width (90-270)         | 0.25 ft             |
| Luminous Height                 | 0.16 ft             |

### LUMINANCE DATA (cd/sq.m)

| Angle In<br>Degrees | Average<br>0-Deg | Average<br>45-Deg | Average<br>90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45                  | 8853             | 7386              | 7532              |
| 55                  | 8510             | 6993              | 7337              |
| 65                  | 7696             | 6707              | 7262              |
| 75                  | 6760             | 6593              | 7358              |
| 85                  | 4960             | 6822              | 7731              |

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : COB-PD-4-D10-I10-40-80-FWD-XX-WH-CW-LVPW.IES

## CANDELA TABULATION

|      | <u>0.0</u> | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> |
|------|------------|-------------|-------------|-------------|-------------|
| 0.0  | 926.63     | 926.63      | 926.63      | 926.63      | 926.63      |
| 0.5  | 926.41     | 926.41      | 926.63      | 927.07      | 927.29      |
| 1.0  | 925.98     | 925.98      | 926.41      | 927.29      | 927.73      |
| 1.5  | 925.54     | 925.32      | 926.20      | 927.51      | 928.38      |
| 2.0  | 924.89     | 924.89      | 925.98      | 927.73      | 928.82      |
| 2.5  | 924.01     | 924.01      | 925.54      | 927.73      | 929.04      |
| 3.0  | 923.36     | 923.36      | 925.10      | 927.73      | 929.47      |
| 3.5  | 922.48     | 922.48      | 924.67      | 927.94      | 929.91      |
| 4.0  | 921.39     | 921.61      | 924.23      | 928.16      | 930.13      |
| 4.5  | 920.30     | 920.52      | 923.79      | 928.16      | 930.78      |
| 5.0  | 919.20     | 919.42      | 923.14      | 928.38      | 931.44      |
| 5.5  | 918.11     | 918.55      | 922.48      | 927.94      | 931.00      |
| 6.0  | 917.02     | 917.67      | 921.83      | 927.51      | 930.78      |
| 6.5  | 915.93     | 916.80      | 921.17      | 927.07      | 930.57      |
| 7.0  | 914.62     | 915.71      | 920.30      | 926.63      | 930.13      |
| 7.5  | 913.52     | 914.62      | 919.64      | 926.20      | 929.69      |
| 8.0  | 912.21     | 913.30      | 918.77      | 925.54      | 929.47      |
| 8.5  | 910.68     | 911.99      | 917.89      | 925.10      | 929.04      |
| 9.0  | 908.94     | 910.46      | 916.80      | 924.45      | 928.60      |
| 9.5  | 907.62     | 909.37      | 915.93      | 923.79      | 928.16      |
| 10.0 | 905.88     | 907.62      | 914.83      | 923.14      | 927.29      |
| 10.5 | 904.13     | 906.09      | 913.52      | 922.48      | 927.07      |
| 11.0 | 902.16     | 904.35      | 912.21      | 921.61      | 926.20      |
| 11.5 | 900.20     | 902.60      | 911.12      | 920.73      | 925.54      |
| 12.0 | 898.23     | 900.63      | 909.81      | 920.30      | 924.67      |
| 12.5 | 896.04     | 898.88      | 908.28      | 919.20      | 924.23      |
| 13.0 | 893.64     | 896.92      | 906.97      | 918.11      | 923.57      |
| 13.5 | 891.46     | 894.95      | 905.66      | 917.24      | 922.48      |
| 14.0 | 889.27     | 892.77      | 904.13      | 916.36      | 921.83      |
| 14.5 | 886.65     | 890.58      | 902.38      | 915.27      | 920.95      |
| 15.0 | 884.25     | 888.18      | 900.85      | 914.18      | 920.52      |
| 15.5 | 881.62     | 885.77      | 899.10      | 913.09      | 919.42      |
| 16.0 | 878.78     | 883.59      | 897.35      | 911.99      | 918.55      |
| 16.5 | 875.94     | 880.97      | 895.39      | 910.68      | 917.46      |
| 17.0 | 873.32     | 878.56      | 893.64      | 909.59      | 916.58      |
| 17.5 | 870.04     | 875.72      | 891.67      | 908.28      | 915.27      |
| 18.0 | 867.20     | 873.32      | 889.71      | 906.97      | 914.62      |
| 18.5 | 864.14     | 870.48      | 887.52      | 905.66      | 913.30      |
| 19.0 | 860.87     | 867.42      | 885.56      | 904.13      | 912.21      |
| 19.5 | 857.59     | 864.58      | 883.59      | 902.82      | 911.12      |
| 20.0 | 854.09     | 861.74      | 881.19      | 901.29      | 909.81      |
| 20.5 | 851.03     | 858.68      | 879.22      | 899.76      | 908.50      |
| 21.0 | 847.32     | 855.40      | 876.82      | 898.23      | 907.19      |
| 21.5 | 843.82     | 852.35      | 874.41      | 896.48      | 905.88      |
| 22.0 | 840.33     | 849.07      | 872.01      | 894.95      | 904.78      |
| 22.5 | 836.61     | 845.79      | 869.61      | 893.20      | 903.25      |
| 23.0 | 832.90     | 842.51      | 867.20      | 891.67      | 901.94      |
| 23.5 | 829.18     | 839.24      | 864.58      | 889.71      | 900.41      |
| 24.0 | 825.47     | 835.74      | 861.96      | 887.96      | 898.88      |
| 24.5 | 821.32     | 832.03      | 859.34      | 885.99      | 897.35      |
| 25.0 | 817.17     | 828.53      | 856.71      | 884.25      | 896.04      |
| 25.5 | 813.23     | 824.60      | 853.87      | 882.28      | 894.30      |
| 26.0 | 808.86     | 821.10      | 851.03      | 880.31      | 892.77      |
| 26.5 | 804.49     | 817.39      | 848.19      | 878.35      | 891.02      |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : COB-PD-4-D10-I10-40-80-FWD-XX-WH-CW-LVPW.IES****CANDELA TABULATION - (Cont.)**

|      |        |        |        |        |        |
|------|--------|--------|--------|--------|--------|
| 27.0 | 800.34 | 813.45 | 845.35 | 876.38 | 889.27 |
| 27.5 | 795.97 | 809.52 | 842.51 | 874.41 | 887.74 |
| 28.0 | 791.60 | 805.59 | 839.45 | 872.23 | 885.77 |
| 28.5 | 787.23 | 801.65 | 836.40 | 869.82 | 884.03 |
| 29.0 | 782.21 | 797.28 | 833.55 | 867.86 | 882.06 |
| 29.5 | 777.62 | 793.13 | 830.50 | 865.67 | 880.31 |
| 30.0 | 773.03 | 789.20 | 827.66 | 863.27 | 878.35 |
| 30.5 | 768.44 | 784.83 | 824.60 | 861.08 | 876.38 |
| 31.0 | 763.42 | 780.46 | 821.76 | 858.68 | 874.41 |
| 31.5 | 758.61 | 775.87 | 818.48 | 856.50 | 872.67 |
| 32.0 | 753.80 | 771.72 | 815.20 | 854.09 | 870.48 |
| 32.5 | 748.56 | 767.13 | 811.71 | 851.47 | 868.51 |
| 33.0 | 743.32 | 762.54 | 807.77 | 849.29 | 866.33 |
| 33.5 | 738.07 | 757.96 | 804.28 | 846.66 | 863.93 |
| 34.0 | 733.05 | 753.15 | 800.34 | 844.04 | 861.96 |
| 34.5 | 727.80 | 748.56 | 796.63 | 841.64 | 859.77 |
| 35.0 | 722.56 | 743.97 | 792.91 | 839.02 | 857.59 |
| 35.5 | 717.32 | 738.95 | 788.98 | 836.40 | 854.97 |
| 36.0 | 711.85 | 734.14 | 785.49 | 833.77 | 852.78 |
| 36.5 | 706.17 | 729.33 | 781.77 | 830.93 | 850.16 |
| 37.0 | 700.49 | 724.53 | 778.06 | 828.09 | 847.76 |
| 37.5 | 695.03 | 719.50 | 774.12 | 825.25 | 845.57 |
| 38.0 | 689.35 | 714.48 | 770.19 | 822.41 | 842.73 |
| 38.5 | 683.67 | 709.23 | 766.48 | 819.57 | 840.33 |
| 39.0 | 677.77 | 704.21 | 762.76 | 816.73 | 837.71 |
| 39.5 | 672.52 | 699.18 | 758.61 | 813.67 | 835.08 |
| 40.0 | 670.12 | 693.72 | 754.68 | 810.61 | 832.46 |
| 40.5 | 670.34 | 688.69 | 750.75 | 807.55 | 829.84 |
| 41.0 | 665.53 | 683.67 | 746.81 | 804.71 | 827.00 |
| 41.5 | 653.52 | 679.95 | 742.66 | 801.44 | 824.16 |
| 42.0 | 643.25 | 676.02 | 738.51 | 798.38 | 821.32 |
| 42.5 | 636.04 | 669.25 | 734.58 | 795.10 | 818.70 |
| 43.0 | 629.92 | 662.47 | 730.43 | 792.04 | 815.64 |
| 43.5 | 623.80 | 656.57 | 726.06 | 788.76 | 813.02 |
| 44.0 | 617.46 | 651.11 | 722.12 | 785.49 | 809.96 |
| 44.5 | 610.91 | 645.65 | 717.75 | 782.21 | 807.12 |
| 45.0 | 604.79 | 639.97 | 713.38 | 778.71 | 804.28 |
| 45.5 | 598.67 | 634.51 | 709.23 | 775.65 | 801.22 |
| 46.0 | 591.90 | 628.83 | 704.86 | 772.16 | 798.16 |
| 46.5 | 585.78 | 623.36 | 700.49 | 768.88 | 795.10 |
| 47.0 | 579.01 | 617.46 | 695.90 | 765.38 | 791.82 |
| 47.5 | 572.45 | 611.78 | 691.53 | 761.89 | 788.98 |
| 48.0 | 565.90 | 605.88 | 686.95 | 758.39 | 785.92 |
| 48.5 | 559.34 | 600.64 | 682.58 | 754.90 | 782.86 |
| 49.0 | 552.57 | 595.40 | 677.99 | 751.18 | 779.59 |
| 49.5 | 546.02 | 590.37 | 673.40 | 747.69 | 776.31 |
| 50.0 | 539.24 | 585.35 | 669.25 | 744.41 | 773.25 |
| 50.5 | 532.47 | 580.10 | 664.44 | 740.91 | 769.97 |
| 51.0 | 525.70 | 574.86 | 659.85 | 737.20 | 766.70 |
| 51.5 | 518.70 | 569.40 | 655.26 | 733.48 | 763.64 |
| 52.0 | 512.15 | 563.93 | 650.68 | 730.21 | 760.14 |
| 52.5 | 505.38 | 558.47 | 646.09 | 726.27 | 756.86 |
| 53.0 | 498.38 | 553.23 | 641.28 | 722.78 | 753.59 |
| 53.5 | 494.01 | 547.55 | 636.69 | 718.85 | 750.53 |
| 54.0 | 494.23 | 541.43 | 632.10 | 715.35 | 746.81 |
| 54.5 | 490.74 | 535.09 | 627.51 | 711.85 | 743.54 |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : COB-PD-4-D10-I10-40-80-FWD-XX-WH-CW-LVPW.IES****CANDELA TABULATION - (Cont.)**

|      |        |        |        |        |        |
|------|--------|--------|--------|--------|--------|
| 55.0 | 479.16 | 528.10 | 622.71 | 708.14 | 740.04 |
| 55.5 | 464.52 | 521.33 | 618.12 | 704.21 | 736.54 |
| 56.0 | 456.65 | 514.12 | 613.53 | 700.49 | 733.05 |
| 56.5 | 449.66 | 508.65 | 609.16 | 696.78 | 729.55 |
| 57.0 | 442.45 | 504.07 | 605.01 | 692.84 | 726.06 |
| 57.5 | 435.24 | 499.26 | 600.86 | 689.13 | 722.56 |
| 58.0 | 428.47 | 491.83 | 596.71 | 685.20 | 718.85 |
| 58.5 | 421.04 | 482.65 | 592.34 | 681.48 | 715.35 |
| 59.0 | 413.83 | 475.22 | 587.75 | 677.55 | 711.85 |
| 59.5 | 407.05 | 468.89 | 582.94 | 673.62 | 708.14 |
| 60.0 | 399.63 | 462.77 | 578.14 | 669.90 | 704.42 |
| 60.5 | 392.42 | 456.65 | 573.11 | 665.75 | 700.93 |
| 61.0 | 385.42 | 450.53 | 568.08 | 662.04 | 697.21 |
| 61.5 | 378.21 | 444.20 | 563.06 | 658.10 | 693.50 |
| 62.0 | 375.15 | 438.30 | 558.03 | 654.17 | 690.00 |
| 62.5 | 373.84 | 431.96 | 553.01 | 650.24 | 686.07 |
| 63.0 | 364.23 | 426.06 | 547.98 | 646.09 | 682.36 |
| 63.5 | 349.81 | 419.95 | 542.96 | 642.37 | 678.64 |
| 64.0 | 341.94 | 413.61 | 538.15 | 638.44 | 674.93 |
| 64.5 | 334.95 | 407.71 | 533.34 | 634.29 | 671.21 |
| 65.0 | 327.74 | 401.59 | 528.54 | 630.36 | 667.28 |
| 65.5 | 320.31 | 395.47 | 523.73 | 626.42 | 663.57 |
| 66.0 | 313.10 | 389.36 | 518.92 | 622.27 | 659.85 |
| 66.5 | 305.89 | 383.46 | 514.33 | 618.34 | 655.92 |
| 67.0 | 298.68 | 377.34 | 509.53 | 614.19 | 652.20 |
| 67.5 | 296.50 | 371.66 | 505.16 | 610.04 | 648.27 |
| 68.0 | 292.56 | 367.07 | 500.57 | 606.10 | 644.56 |
| 68.5 | 278.14 | 361.61 | 495.76 | 602.17 | 640.62 |
| 69.0 | 270.06 | 356.36 | 490.96 | 598.24 | 636.69 |
| 69.5 | 262.63 | 350.90 | 486.37 | 593.87 | 632.76 |
| 70.0 | 255.86 | 345.00 | 481.56 | 590.15 | 628.83 |
| 70.5 | 248.43 | 337.57 | 477.19 | 586.00 | 625.11 |
| 71.0 | 242.31 | 330.58 | 472.60 | 581.85 | 621.18 |
| 71.5 | 241.00 | 324.46 | 468.01 | 577.70 | 617.25 |
| 72.0 | 228.76 | 318.78 | 463.43 | 573.77 | 613.31 |
| 72.5 | 220.68 | 313.10 | 458.84 | 569.83 | 609.38 |
| 73.0 | 213.69 | 307.42 | 454.47 | 565.68 | 605.45 |
| 73.5 | 206.91 | 301.96 | 449.88 | 561.53 | 601.51 |
| 74.0 | 204.73 | 296.28 | 445.29 | 557.60 | 597.36 |
| 74.5 | 195.77 | 291.03 | 440.70 | 553.66 | 593.21 |
| 75.0 | 186.38 | 285.57 | 436.33 | 549.51 | 589.50 |
| 75.5 | 179.60 | 280.33 | 431.96 | 545.36 | 585.13 |
| 76.0 | 176.76 | 274.87 | 427.37 | 541.21 | 581.63 |
| 76.5 | 166.93 | 269.40 | 423.00 | 537.06 | 577.70 |
| 77.0 | 159.28 | 264.60 | 418.85 | 533.13 | 573.77 |
| 77.5 | 155.13 | 259.35 | 414.48 | 528.97 | 569.61 |
| 78.0 | 147.05 | 254.33 | 410.11 | 524.82 | 565.68 |
| 78.5 | 139.62 | 249.30 | 405.74 | 520.89 | 561.53 |
| 79.0 | 136.12 | 244.49 | 401.37 | 516.96 | 557.60 |
| 79.5 | 126.73 | 240.12 | 397.22 | 512.81 | 553.88 |
| 80.0 | 123.01 | 235.10 | 392.85 | 508.87 | 549.95 |
| 80.5 | 113.84 | 230.07 | 388.48 | 504.72 | 545.58 |
| 81.0 | 108.15 | 225.49 | 384.33 | 500.57 | 541.65 |
| 81.5 | 102.69 | 220.68 | 380.40 | 496.64 | 537.71 |
| 82.0 | 95.92  | 216.09 | 376.47 | 492.70 | 533.78 |
| 82.5 | 89.36  | 211.50 | 371.88 | 488.55 | 529.85 |

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|       |        |        |        |        |        |
|-------|--------|--------|--------|--------|--------|
| 83.0  | 83.68  | 207.13 | 368.16 | 484.62 | 525.48 |
| 83.5  | 77.57  | 202.76 | 364.01 | 480.69 | 521.55 |
| 84.0  | 70.57  | 198.39 | 359.86 | 476.54 | 517.83 |
| 84.5  | 64.67  | 194.24 | 355.71 | 472.38 | 513.90 |
| 85.0  | 58.12  | 190.09 | 351.56 | 468.45 | 509.53 |
| 85.5  | 51.78  | 186.16 | 347.62 | 464.52 | 505.60 |
| 86.0  | 45.88  | 182.22 | 343.91 | 460.37 | 501.88 |
| 86.5  | 39.77  | 178.29 | 339.98 | 456.43 | 497.95 |
| 87.0  | 33.65  | 174.58 | 336.26 | 452.50 | 493.80 |
| 87.5  | 26.66  | 170.64 | 332.11 | 448.57 | 489.86 |
| 88.0  | 20.76  | 167.15 | 328.18 | 444.64 | 486.15 |
| 88.5  | 14.42  | 163.43 | 324.25 | 440.48 | 482.00 |
| 89.0  | 8.52   | 159.94 | 320.75 | 436.77 | 478.06 |
| 89.5  | 2.62   | 156.44 | 316.82 | 432.84 | 474.13 |
| 90.0  | 1.53   | 153.16 | 313.10 | 428.90 | 470.20 |
| 90.5  | 2.40   | 150.32 | 310.26 | 426.06 | 467.58 |
| 91.0  | 4.59   | 147.05 | 306.55 | 422.35 | 463.64 |
| 91.5  | 10.27  | 144.21 | 303.05 | 418.42 | 459.71 |
| 92.0  | 16.39  | 141.15 | 299.56 | 414.70 | 455.56 |
| 92.5  | 23.38  | 138.31 | 296.06 | 410.77 | 451.85 |
| 93.0  | 30.59  | 135.68 | 292.34 | 407.05 | 448.13 |
| 93.5  | 38.02  | 133.28 | 289.07 | 403.34 | 443.98 |
| 94.0  | 45.45  | 130.88 | 285.35 | 399.41 | 440.05 |
| 94.5  | 52.44  | 129.57 | 282.29 | 395.47 | 436.11 |
| 95.0  | 59.65  | 129.35 | 279.02 | 391.98 | 432.40 |
| 95.5  | 67.08  | 130.66 | 275.74 | 388.26 | 428.25 |
| 96.0  | 74.51  | 134.16 | 272.46 | 384.55 | 424.75 |
| 96.5  | 82.37  | 139.40 | 269.40 | 380.62 | 420.82 |
| 97.0  | 90.02  | 147.05 | 266.56 | 377.12 | 417.11 |
| 97.5  | 97.89  | 156.88 | 263.94 | 373.41 | 413.39 |
| 98.0  | 105.31 | 167.80 | 261.97 | 369.69 | 409.46 |
| 98.5  | 113.84 | 178.73 | 260.44 | 366.20 | 405.52 |
| 99.0  | 121.70 | 189.22 | 259.79 | 363.14 | 401.81 |
| 99.5  | 130.22 | 199.05 | 259.57 | 360.08 | 398.53 |
| 100.0 | 138.31 | 208.66 | 260.44 | 357.46 | 395.47 |
| 100.5 | 146.83 | 217.62 | 262.19 | 355.05 | 392.20 |
| 101.0 | 155.57 | 226.14 | 264.81 | 352.87 | 389.36 |
| 101.5 | 164.31 | 234.66 | 268.75 | 351.56 | 386.73 |
| 102.0 | 173.05 | 243.18 | 273.77 | 350.25 | 384.77 |
| 102.5 | 182.01 | 251.27 | 280.33 | 349.81 | 383.24 |
| 103.0 | 191.18 | 259.79 | 288.41 | 350.03 | 382.15 |
| 103.5 | 200.36 | 267.87 | 297.37 | 350.68 | 381.27 |
| 104.0 | 209.54 | 276.18 | 307.42 | 352.21 | 381.27 |
| 104.5 | 218.71 | 284.48 | 319.00 | 354.62 | 381.71 |
| 105.0 | 228.33 | 293.00 | 330.80 | 357.89 | 382.80 |
| 105.5 | 237.94 | 301.74 | 343.25 | 362.04 | 384.55 |
| 106.0 | 247.55 | 310.04 | 355.49 | 367.29 | 387.17 |
| 106.5 | 257.39 | 319.22 | 367.73 | 373.62 | 390.67 |
| 107.0 | 267.22 | 327.96 | 379.74 | 380.84 | 395.04 |
| 107.5 | 277.27 | 336.92 | 391.54 | 389.79 | 400.28 |
| 108.0 | 287.32 | 345.66 | 402.90 | 399.19 | 406.84 |
| 108.5 | 297.37 | 354.83 | 413.83 | 409.46 | 414.05 |
| 109.0 | 307.64 | 364.01 | 424.75 | 420.82 | 422.57 |
| 109.5 | 317.69 | 372.97 | 435.24 | 432.62 | 432.18 |
| 110.0 | 328.40 | 382.58 | 445.73 | 445.29 | 442.67 |
| 110.5 | 338.67 | 391.76 | 455.78 | 457.74 | 453.81 |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : COB-PD-4-D10-I10-40-80-FWD-XX-WH-CW-LVPW.IES****CANDELA TABULATION - (Cont.)**

|       |        |        |         |         |         |
|-------|--------|--------|---------|---------|---------|
| 111.0 | 349.37 | 401.37 | 466.05  | 470.42  | 465.61  |
| 111.5 | 359.86 | 410.77 | 475.88  | 482.87  | 477.85  |
| 112.0 | 370.35 | 420.38 | 485.71  | 495.54  | 490.52  |
| 112.5 | 380.62 | 430.00 | 495.33  | 508.00  | 502.97  |
| 113.0 | 391.10 | 439.39 | 504.94  | 520.02  | 515.65  |
| 113.5 | 402.03 | 449.22 | 514.77  | 531.81  | 528.54  |
| 114.0 | 412.52 | 459.06 | 524.17  | 543.61  | 540.77  |
| 114.5 | 423.44 | 469.11 | 533.78  | 555.41  | 553.66  |
| 115.0 | 434.37 | 478.94 | 543.18  | 566.55  | 565.46  |
| 115.5 | 445.29 | 488.99 | 552.79  | 577.70  | 577.70  |
| 116.0 | 456.00 | 498.82 | 562.19  | 588.40  | 589.50  |
| 116.5 | 466.70 | 508.65 | 571.58  | 599.11  | 601.08  |
| 117.0 | 477.63 | 518.70 | 580.76  | 609.60  | 612.44  |
| 117.5 | 488.55 | 528.76 | 590.15  | 620.09  | 623.36  |
| 118.0 | 499.91 | 538.81 | 599.77  | 630.79  | 634.29  |
| 118.5 | 510.62 | 548.86 | 608.94  | 640.84  | 645.21  |
| 119.0 | 521.76 | 559.34 | 618.34  | 651.33  | 655.92  |
| 119.5 | 532.91 | 569.40 | 627.73  | 661.16  | 666.41  |
| 120.0 | 543.61 | 579.88 | 637.35  | 671.21  | 676.89  |
| 120.5 | 554.97 | 590.15 | 646.74  | 680.83  | 687.16  |
| 121.0 | 566.12 | 600.64 | 656.57  | 690.88  | 697.43  |
| 121.5 | 576.82 | 610.69 | 665.75  | 700.49  | 707.70  |
| 122.0 | 587.97 | 621.18 | 675.36  | 709.89  | 717.32  |
| 122.5 | 599.11 | 631.88 | 684.76  | 719.72  | 727.59  |
| 123.0 | 610.25 | 642.15 | 694.37  | 729.11  | 737.20  |
| 123.5 | 621.40 | 652.86 | 704.21  | 738.73  | 747.25  |
| 124.0 | 632.32 | 663.35 | 713.82  | 748.12  | 756.86  |
| 124.5 | 644.12 | 674.05 | 723.65  | 757.74  | 766.70  |
| 125.0 | 655.05 | 684.76 | 733.27  | 767.13  | 776.31  |
| 125.5 | 666.41 | 695.47 | 743.10  | 776.96  | 785.92  |
| 126.0 | 677.55 | 705.74 | 752.93  | 786.14  | 795.76  |
| 126.5 | 688.47 | 716.44 | 762.76  | 795.32  | 805.15  |
| 127.0 | 699.84 | 726.93 | 772.38  | 805.15  | 814.98  |
| 127.5 | 710.54 | 737.64 | 782.21  | 814.76  | 824.38  |
| 128.0 | 722.34 | 748.12 | 792.04  | 824.38  | 834.21  |
| 128.5 | 733.48 | 759.05 | 801.87  | 833.99  | 843.61  |
| 129.0 | 744.63 | 769.54 | 811.71  | 843.61  | 853.44  |
| 129.5 | 755.99 | 780.02 | 821.54  | 853.00  | 862.83  |
| 130.0 | 767.13 | 790.95 | 831.81  | 862.83  | 872.67  |
| 130.5 | 778.49 | 801.44 | 841.64  | 872.23  | 882.06  |
| 131.0 | 789.20 | 811.92 | 851.47  | 882.06  | 891.67  |
| 131.5 | 800.56 | 822.85 | 861.52  | 891.89  | 901.51  |
| 132.0 | 811.92 | 833.55 | 871.35  | 901.29  | 910.68  |
| 132.5 | 823.07 | 844.26 | 881.62  | 911.34  | 920.52  |
| 133.0 | 833.99 | 854.75 | 891.46  | 920.95  | 929.91  |
| 133.5 | 845.57 | 865.45 | 901.51  | 930.57  | 939.52  |
| 134.0 | 856.06 | 875.72 | 911.34  | 940.18  | 948.92  |
| 134.5 | 867.86 | 886.65 | 921.39  | 950.23  | 958.53  |
| 135.0 | 878.78 | 897.14 | 931.00  | 959.63  | 968.15  |
| 135.5 | 889.49 | 907.62 | 940.84  | 969.24  | 977.54  |
| 136.0 | 900.85 | 918.55 | 950.89  | 979.07  | 987.37  |
| 136.5 | 911.34 | 928.82 | 960.94  | 988.90  | 996.77  |
| 137.0 | 922.70 | 939.52 | 970.77  | 998.52  | 1006.60 |
| 137.5 | 933.41 | 950.01 | 980.38  | 1007.91 | 1015.78 |
| 138.0 | 944.55 | 960.50 | 990.43  | 1017.75 | 1025.39 |
| 138.5 | 955.69 | 970.77 | 1000.05 | 1027.14 | 1034.79 |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : COB-PD-4-D10-I10-40-80-FWD-XX-WH-CW-LVPW.IES****CANDELA TABULATION - (Cont.)**

|       |         |         |         |         |         |
|-------|---------|---------|---------|---------|---------|
| 139.0 | 966.40  | 981.48  | 1010.32 | 1036.54 | 1044.40 |
| 139.5 | 976.67  | 991.74  | 1019.71 | 1045.93 | 1053.80 |
| 140.0 | 987.37  | 1001.79 | 1029.33 | 1055.33 | 1062.97 |
| 140.5 | 998.30  | 1012.28 | 1039.16 | 1065.16 | 1072.37 |
| 141.0 | 1008.57 | 1022.55 | 1048.77 | 1074.33 | 1081.76 |
| 141.5 | 1019.49 | 1032.82 | 1058.82 | 1083.73 | 1090.94 |
| 142.0 | 1030.42 | 1042.87 | 1068.65 | 1092.91 | 1100.12 |
| 142.5 | 1041.34 | 1052.70 | 1078.05 | 1102.30 | 1109.73 |
| 143.0 | 1051.17 | 1062.75 | 1087.66 | 1111.48 | 1118.69 |
| 143.5 | 1061.66 | 1073.02 | 1097.28 | 1120.66 | 1128.08 |
| 144.0 | 1072.37 | 1082.64 | 1106.67 | 1129.83 | 1136.82 |
| 144.5 | 1082.20 | 1092.25 | 1116.07 | 1138.79 | 1145.78 |
| 145.0 | 1091.81 | 1102.30 | 1125.24 | 1147.75 | 1154.74 |
| 145.5 | 1101.87 | 1111.92 | 1134.20 | 1156.49 | 1163.48 |
| 146.0 | 1112.13 | 1121.75 | 1143.82 | 1165.67 | 1172.44 |
| 146.5 | 1121.97 | 1131.14 | 1152.77 | 1174.41 | 1180.96 |
| 147.0 | 1132.24 | 1140.32 | 1161.95 | 1183.15 | 1189.48 |
| 147.5 | 1142.07 | 1149.72 | 1170.47 | 1191.88 | 1198.22 |
| 148.0 | 1151.46 | 1159.55 | 1179.87 | 1200.62 | 1206.96 |
| 148.5 | 1161.51 | 1168.72 | 1188.61 | 1209.15 | 1215.05 |
| 149.0 | 1170.69 | 1177.68 | 1197.35 | 1217.45 | 1223.35 |
| 149.5 | 1180.09 | 1186.64 | 1206.09 | 1226.19 | 1231.87 |
| 150.0 | 1189.04 | 1195.16 | 1214.39 | 1234.27 | 1239.73 |
| 150.5 | 1198.00 | 1204.34 | 1223.13 | 1242.79 | 1248.04 |
| 151.0 | 1207.18 | 1213.30 | 1231.43 | 1250.88 | 1256.12 |
| 151.5 | 1216.57 | 1222.26 | 1239.95 | 1258.96 | 1264.21 |
| 152.0 | 1225.53 | 1230.56 | 1248.04 | 1266.83 | 1271.85 |
| 152.5 | 1234.05 | 1239.30 | 1256.34 | 1274.69 | 1279.72 |
| 153.0 | 1242.79 | 1247.16 | 1264.42 | 1282.56 | 1287.15 |
| 153.5 | 1251.53 | 1255.03 | 1272.07 | 1289.99 | 1294.58 |
| 154.0 | 1260.27 | 1263.33 | 1280.16 | 1297.85 | 1302.01 |
| 154.5 | 1268.58 | 1271.85 | 1287.59 | 1305.28 | 1309.22 |
| 155.0 | 1276.66 | 1280.16 | 1295.45 | 1312.71 | 1316.43 |
| 155.5 | 1284.53 | 1287.80 | 1302.88 | 1319.92 | 1323.20 |
| 156.0 | 1292.61 | 1295.67 | 1310.31 | 1327.13 | 1330.19 |
| 156.5 | 1300.26 | 1302.88 | 1317.74 | 1333.91 | 1337.18 |
| 157.0 | 1308.34 | 1310.53 | 1324.95 | 1340.90 | 1343.96 |
| 157.5 | 1315.99 | 1317.52 | 1331.72 | 1347.45 | 1350.29 |
| 158.0 | 1323.42 | 1324.73 | 1338.71 | 1354.01 | 1356.63 |
| 158.5 | 1330.41 | 1331.94 | 1345.27 | 1360.56 | 1363.18 |
| 159.0 | 1336.96 | 1338.93 | 1352.04 | 1367.12 | 1369.08 |
| 159.5 | 1344.18 | 1345.70 | 1358.16 | 1373.45 | 1374.98 |
| 160.0 | 1350.95 | 1352.04 | 1364.71 | 1379.57 | 1380.88 |
| 160.5 | 1357.72 | 1358.60 | 1371.05 | 1385.47 | 1386.78 |
| 161.0 | 1364.71 | 1365.15 | 1377.17 | 1391.37 | 1392.46 |
| 161.5 | 1371.27 | 1371.49 | 1383.29 | 1397.27 | 1397.71 |
| 162.0 | 1377.39 | 1377.60 | 1388.75 | 1402.73 | 1403.39 |
| 162.5 | 1383.29 | 1383.72 | 1394.43 | 1407.98 | 1408.63 |
| 163.0 | 1389.18 | 1389.62 | 1399.89 | 1413.22 | 1413.87 |
| 163.5 | 1394.65 | 1395.08 | 1405.13 | 1418.46 | 1418.68 |
| 164.0 | 1400.55 | 1400.77 | 1410.38 | 1423.49 | 1423.27 |
| 164.5 | 1406.23 | 1406.01 | 1415.19 | 1428.30 | 1428.30 |
| 165.0 | 1411.47 | 1411.47 | 1420.43 | 1433.10 | 1432.45 |
| 165.5 | 1416.93 | 1416.06 | 1425.02 | 1437.69 | 1437.04 |
| 166.0 | 1422.18 | 1421.08 | 1429.82 | 1442.28 | 1441.19 |
| 166.5 | 1426.98 | 1425.24 | 1434.41 | 1446.43 | 1445.34 |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : COB-PD-4-D10-I10-40-80-FWD-XX-WH-CW-LVPW.IES****CANDELA TABULATION - (Cont.)**

|       |         |         |         |         |         |
|-------|---------|---------|---------|---------|---------|
| 167.0 | 1431.35 | 1430.04 | 1438.35 | 1450.36 | 1449.49 |
| 167.5 | 1435.94 | 1434.63 | 1442.72 | 1454.30 | 1453.20 |
| 168.0 | 1440.31 | 1439.00 | 1446.87 | 1458.23 | 1457.14 |
| 168.5 | 1444.46 | 1443.15 | 1450.80 | 1461.72 | 1460.63 |
| 169.0 | 1448.40 | 1447.30 | 1454.51 | 1465.22 | 1464.13 |
| 169.5 | 1452.33 | 1451.02 | 1458.23 | 1468.72 | 1467.19 |
| 170.0 | 1456.04 | 1454.51 | 1461.72 | 1471.99 | 1470.46 |
| 170.5 | 1459.54 | 1458.01 | 1465.22 | 1475.05 | 1473.31 |
| 171.0 | 1462.60 | 1461.29 | 1468.06 | 1477.89 | 1476.36 |
| 171.5 | 1465.88 | 1464.35 | 1471.12 | 1480.73 | 1478.77 |
| 172.0 | 1468.94 | 1467.41 | 1473.96 | 1483.36 | 1481.61 |
| 172.5 | 1471.78 | 1470.03 | 1476.36 | 1485.98 | 1484.01 |
| 173.0 | 1474.18 | 1472.65 | 1478.77 | 1487.94 | 1486.41 |
| 173.5 | 1476.80 | 1475.05 | 1480.95 | 1490.35 | 1488.82 |
| 174.0 | 1479.20 | 1477.24 | 1483.36 | 1492.31 | 1490.78 |
| 174.5 | 1481.17 | 1479.20 | 1485.10 | 1494.06 | 1492.53 |
| 175.0 | 1482.92 | 1481.17 | 1486.85 | 1496.03 | 1494.28 |
| 175.5 | 1485.10 | 1483.57 | 1488.60 | 1496.47 | 1495.37 |
| 176.0 | 1487.29 | 1485.76 | 1490.13 | 1497.12 | 1496.25 |
| 176.5 | 1489.04 | 1487.73 | 1491.66 | 1497.78 | 1496.68 |
| 177.0 | 1490.57 | 1489.69 | 1492.97 | 1498.21 | 1497.34 |
| 177.5 | 1492.10 | 1491.44 | 1494.06 | 1498.43 | 1497.78 |
| 178.0 | 1493.62 | 1492.75 | 1494.94 | 1498.43 | 1497.99 |
| 178.5 | 1494.50 | 1494.06 | 1495.81 | 1498.21 | 1497.99 |
| 179.0 | 1495.59 | 1495.15 | 1496.25 | 1497.99 | 1497.78 |
| 179.5 | 1496.25 | 1496.03 | 1496.47 | 1497.34 | 1497.34 |
| 180.0 | 1496.90 | 1496.90 | 1496.90 | 1496.90 | 1496.90 |



**IES INDOOR REPORT****PHOTOMETRIC FILENAME : COB-PD-4-D10-I10-40-80-FWD-XX-WH-CW-LVPW.IES****ZONAL LUMEN SUMMARY**

| Zone    | Lumens  | %Lamp | %Fixt  |
|---------|---------|-------|--------|
| 0-20    | 342.65  | N.A.  | 4.30   |
| 0-30    | 737.89  | N.A.  | 9.20   |
| 0-40    | 1233.69 | N.A.  | 15.40  |
| 0-60    | 2333.5  | N.A.  | 29.20  |
| 0-80    | 3283.07 | N.A.  | 41.00  |
| 0-90    | 3636.57 | N.A.  | 45.50  |
| 10-90   | 3548.64 | N.A.  | 44.40  |
| 20-40   | 891.04  | N.A.  | 11.10  |
| 20-50   | 1439.11 | N.A.  | 18.00  |
| 40-70   | 1610.31 | N.A.  | 20.10  |
| 60-80   | 949.57  | N.A.  | 11.90  |
| 70-80   | 439.07  | N.A.  | 5.50   |
| 80-90   | 353.50  | N.A.  | 4.40   |
| 90-110  | 639.97  | N.A.  | 8.00   |
| 90-120  | 1155.88 | N.A.  | 14.40  |
| 90-130  | 1804.73 | N.A.  | 22.60  |
| 90-150  | 3224.28 | N.A.  | 40.30  |
| 90-180  | 4363.15 | N.A.  | 54.50  |
| 110-180 | 3723.18 | N.A.  | 46.50  |
| 0-180   | 7999.72 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 87.93  |
| 10-20   | 254.72 |
| 20-30   | 395.24 |
| 30-40   | 495.80 |
| 40-50   | 548.07 |
| 50-60   | 551.74 |
| 60-70   | 510.50 |
| 70-80   | 439.07 |
| 80-90   | 353.50 |
| 90-100  | 292.05 |
| 100-110 | 347.92 |
| 110-120 | 515.91 |
| 120-130 | 648.86 |
| 130-140 | 716.14 |
| 140-150 | 703.41 |
| 150-160 | 596.82 |
| 160-170 | 400.80 |
| 170-180 | 141.25 |

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : COB-PD-4-D10-I10-40-80-FWD-XX-WH-CW-LVPW.IES

## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

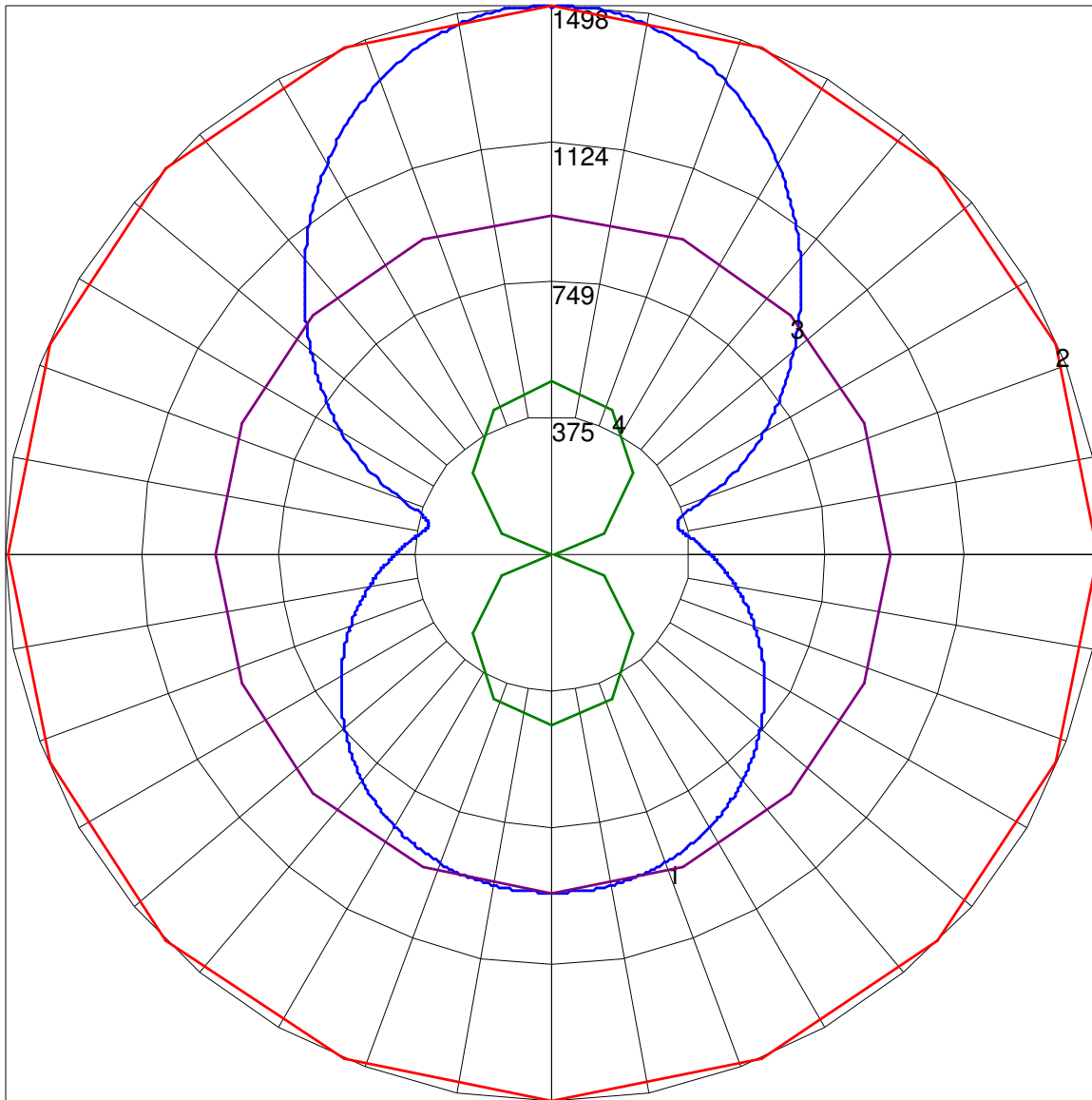
Effective Floor Cavity Reflectance 0.20

| RC | 80  |     |     |     | 70 |    |    |    | 50 |    |    | 30 |    |    | 10 |    |    | 0  |
|----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| RW | 70  | 50  | 30  | 10  | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0  |
| 0  | 106 | 106 | 106 | 106 | 97 | 97 | 97 | 97 | 81 | 81 | 81 | 66 | 66 | 66 | 52 | 52 | 52 | 45 |
| 1  | 95  | 90  | 85  | 81  | 86 | 82 | 78 | 74 | 68 | 65 | 62 | 55 | 53 | 51 | 43 | 41 | 40 | 34 |
| 2  | 85  | 77  | 70  | 64  | 78 | 71 | 65 | 59 | 58 | 54 | 50 | 47 | 44 | 41 | 36 | 34 | 32 | 27 |
| 3  | 78  | 67  | 59  | 53  | 70 | 61 | 54 | 49 | 51 | 45 | 41 | 41 | 37 | 34 | 32 | 29 | 26 | 22 |
| 4  | 71  | 59  | 50  | 44  | 64 | 54 | 47 | 41 | 45 | 39 | 34 | 36 | 32 | 28 | 28 | 25 | 22 | 18 |
| 5  | 65  | 52  | 44  | 37  | 59 | 48 | 40 | 35 | 40 | 34 | 29 | 32 | 28 | 24 | 25 | 22 | 19 | 16 |
| 6  | 59  | 47  | 38  | 32  | 54 | 43 | 35 | 30 | 36 | 30 | 25 | 29 | 24 | 21 | 23 | 19 | 17 | 13 |
| 7  | 55  | 42  | 34  | 28  | 50 | 39 | 31 | 26 | 32 | 26 | 22 | 26 | 22 | 18 | 20 | 17 | 15 | 12 |
| 8  | 51  | 38  | 30  | 24  | 46 | 35 | 28 | 23 | 29 | 23 | 19 | 24 | 19 | 16 | 19 | 15 | 13 | 10 |
| 9  | 47  | 35  | 27  | 22  | 43 | 32 | 25 | 20 | 27 | 21 | 17 | 22 | 17 | 14 | 17 | 14 | 12 | 9  |
| 10 | 44  | 32  | 24  | 19  | 40 | 29 | 22 | 18 | 25 | 19 | 15 | 20 | 16 | 13 | 16 | 13 | 10 | 8  |

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : COB-PD-4-D10-I10-40-80-FWD-XX-WH-CW-LVPW.IES

## POLAR GRAPH



Maximum Candela = 1498.43 Located At Horizontal Angle = 67.5, Vertical Angle = 177.5

# 1 - Vertical Plane Through Horizontal Angles (67.5 - 247.5) (Through Max. Cd.)

# 2 - Horizontal Cone Through Vertical Angle (177.5) (Through Max. Cd.)

# 3 - Horizontal Cone Through Vertical Angle (2)

# 4 - Horizontal Cone Through Vertical Angle (90)