

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P999023

Luminaire Tested: SA2XXDIP-B865D1080UB50-4F0-XX-W2A-D

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P999023
REPORT IS A COMBINATION OF REPORTS P984772 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B865D1080UB50-4F0-XX-W2A-D
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

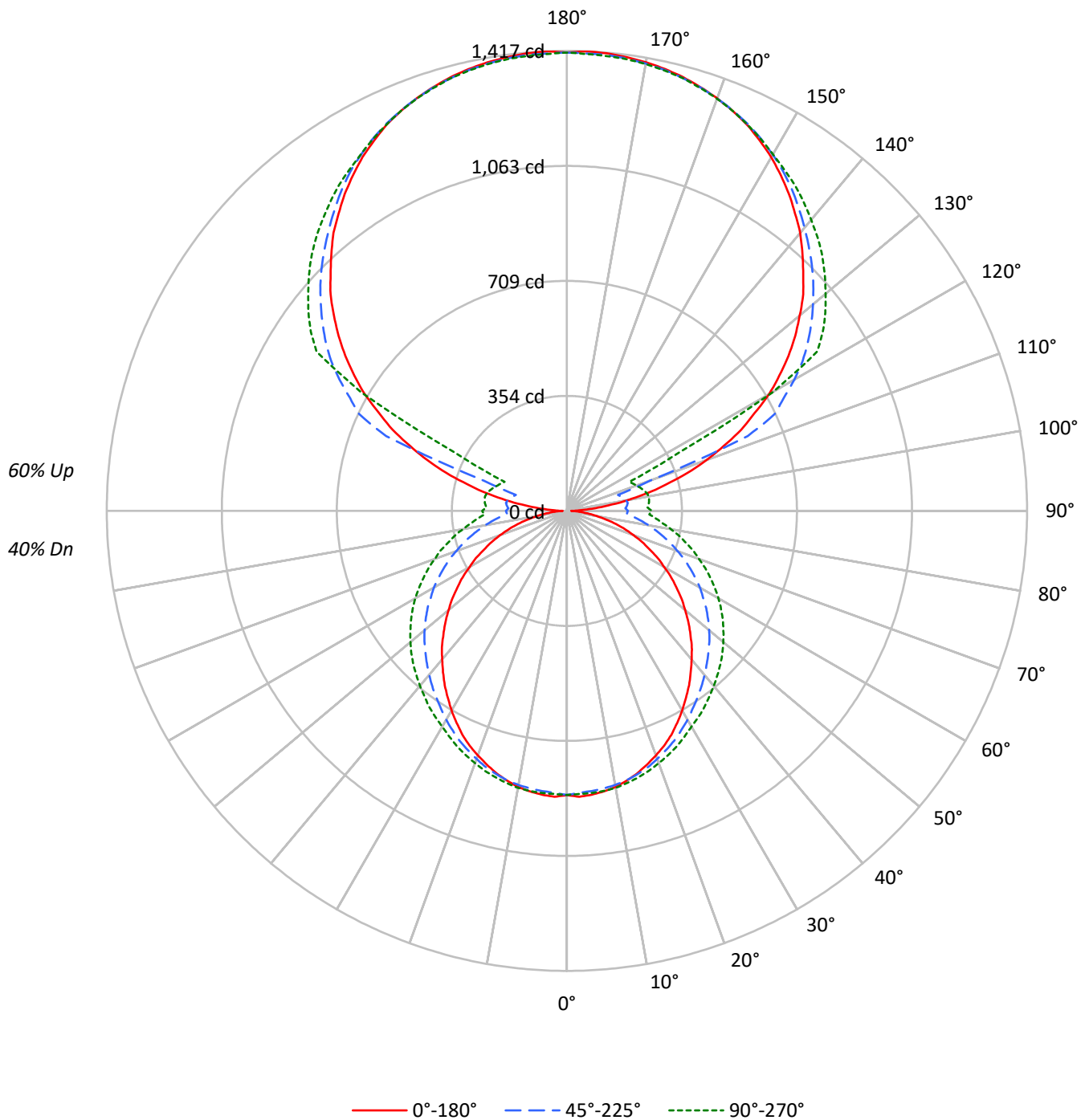
Lumens per Lamp: N/A
Luminaire Lumens: 7480.0 lumens
Efficiency: N/A
Efficacy: 91.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 81.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	105	105	105	105	95	95	95	95	78	78	78	61	61	61	47	47	47	47	47	40
1	94	90	85	81	85	81	78	74	66	64	61	52	50	49	39	38	37	37	37	31
2	85	77	71	65	77	70	65	60	57	53	50	45	42	40	34	32	30	30	30	25
3	78	68	60	54	70	62	55	50	50	45	41	39	36	33	30	27	25	25	25	21
4	71	60	51	45	64	54	47	42	44	39	35	35	31	28	26	24	21	21	21	17
5	65	53	45	38	58	48	41	35	39	34	30	31	27	24	24	21	18	18	18	15
6	59	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	16	16	13
7	55	42	34	29	50	39	32	27	32	26	22	25	21	18	19	16	14	14	14	11
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13	13	13	10
9	47	35	27	22	43	32	25	21	26	21	18	21	17	14	16	13	11	11	11	9
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10	10	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13852	13852	13852
5°	13914	13261	13185
10°	13822	12801	12614
15°	13625	12327	12029
20°	13380	11827	11473
25°	13136	11349	10969
30°	12796	10864	10469
35°	12453	10396	10102
40°	12089	9992	9738
45°	11743	9625	9421
50°	11373	9287	9106
55°	10984	8927	8787
60°	10505	8554	8452
65°	10007	8122	8066
70°	9445	7660	7651
75°	8727	7199	7258
80°	7593	6717	6851
85°	6455	6266	6502

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11743 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.0	1.1
10°-20°	237.9	3.2
20°-30°	360.5	4.8
30°-40°	439.0	5.9
40°-50°	472.3	6.3
50°-60°	458.7	6.1
60°-70°	400.6	5.4
70°-80°	308.3	4.1
80°-90°	209.0	2.8
90°-100°	189.0	2.5
100°-110°	277.6	3.7
110°-120°	528.9	7.1
120°-130°	801.6	10.7
130°-140°	826.9	11.1
140°-150°	756.3	10.1
150°-160°	605.8	8.1
160°-170°	390.4	5.2
170°-180°	134.4	1.8
0°-30°	681.4	9.1
0°-40°	1120.4	15.0
0°-60°	2051.4	27.4
0°-90°	2969.2	39.7
90°-120°	995.5	13.3
90°-150°	3380.2	45.2
90°-180°	4511.0	60.3
0°-180°	7480.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	875	875	875	875	875	
5°	878	874	866	874	872	83
15°	837	840	840	851	850	236
25°	761	770	781	796	800	350
35°	656	677	701	729	738	410
45°	538	572	616	656	668	415
55°	412	458	524	569	586	369
65°	282	344	418	470	487	280
75°	156	227	308	363	379	165
85°	46	124	206	259	276	48
90°	14	98	188	244	261	13
95°	76	102	186	239	253	87
105°	317	384	171	227	245	339
115°	592	624	706	271	212	583
125°	833	846	906	948	962	743
135°	1029	1045	1067	1104	1112	795
145°	1192	1191	1208	1223	1224	746
155°	1313	1303	1316	1322	1314	605
165°	1383	1377	1380	1387	1380	391
175°	1415	1408	1410	1417	1407	135
180°	1412	1412	1412	1412	1412	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	875.1	875.1	875.1	875.1	875.1
2.5°	881.4	877.6	868.7	875.1	872.5
5°	877.6	873.8	866.2	873.8	872.5
7.5°	871.3	868.7	862.4	871.3	870.0
10°	863.7	861.1	857.3	867.5	866.2
12.5°	851.0	852.3	849.7	859.9	858.6
15°	837.0	839.6	839.6	851.0	849.7
17.5°	819.3	824.4	828.2	839.6	839.6
20°	801.5	807.9	812.9	826.9	826.9
22.5°	782.5	790.1	797.7	811.7	814.2
25°	760.9	769.8	781.2	796.5	800.3
27.5°	735.6	749.5	762.2	781.2	783.8
30°	710.2	726.7	743.2	763.5	767.3
32.5°	682.3	701.3	721.6	745.7	753.3
35°	655.7	677.2	701.3	729.2	738.1
37.5°	626.5	650.6	681.0	711.5	720.4
40°	597.3	625.2	659.5	692.5	703.9
42.5°	569.4	597.3	637.9	674.7	686.1
45°	537.7	572.0	616.4	655.7	668.4
47.5°	507.3	544.1	594.8	635.4	649.3
50°	475.6	514.9	572.0	615.1	629.0
52.5°	445.1	487.0	547.9	592.3	607.5
55°	412.2	457.8	523.8	569.4	585.9
57.5°	380.5	431.2	497.1	546.6	563.1
60°	346.2	400.8	473.1	521.2	539.0
62.5°	315.8	372.9	445.1	497.1	513.6
65°	281.5	343.7	418.5	470.5	487.0
67.5°	251.1	315.8	391.9	443.9	461.6
70°	218.1	284.1	362.7	417.2	432.5
72.5°	187.7	256.2	336.1	389.3	408.4
75°	156.0	227.0	308.2	362.7	379.2
77.5°	125.6	199.1	281.5	336.1	353.8
80°	95.1	172.5	254.9	308.2	325.9
82.5°	69.8	145.8	229.6	282.8	299.3
85°	45.7	124.3	205.5	258.7	276.5
87.5°	27.9	104.0	185.2	237.2	253.6
90°	13.7	98.5	187.8	243.6	261.0
92.5°	36.9	100.1	180.5	232.1	248.3
95°	76.5	102.5	185.6	238.9	253.2
97.5°	128.4	99.2	189.1	239.1	255.3
100°	189.7	96.7	185.0	240.1	256.1
102.5°	255.8	295.7	178.2	235.1	252.2
105°	316.8	384.3	171.4	227.0	245.0
107.5°	389.4	445.4	164.6	218.9	237.0
110°	457.6	504.4	271.4	209.8	227.8

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	523.0	561.7	602.6	203.0	219.9
115°	592.4	623.7	706.3	271.4	211.9
117.5°	651.4	682.0	752.6	644.6	389.6
120°	718.8	739.2	808.3	856.1	732.2
122.5°	776.0	793.7	861.0	901.3	913.9
125°	833.0	846.2	906.2	947.7	962.2
127.5°	886.1	899.2	948.7	990.6	1003.0
130°	936.1	951.3	989.1	1030.7	1039.9
132.5°	987.2	999.3	1029.5	1067.9	1077.0
135°	1028.9	1045.2	1067.1	1103.9	1112.0
137.5°	1073.8	1086.1	1102.6	1136.9	1142.8
140°	1117.8	1124.6	1138.4	1167.9	1170.4
142.5°	1154.5	1160.4	1173.7	1197.0	1198.3
145°	1192.1	1191.0	1208.4	1223.1	1224.4
147.5°	1225.8	1222.7	1240.1	1246.5	1246.2
150°	1258.4	1251.3	1267.6	1273.8	1268.7
152.5°	1286.0	1277.9	1293.2	1299.3	1292.2
155°	1312.6	1303.4	1315.7	1321.8	1313.6
157.5°	1334.0	1325.9	1335.1	1342.2	1334.0
160°	1352.4	1346.3	1352.4	1358.6	1351.4
162.5°	1368.8	1362.6	1367.7	1374.9	1365.7
165°	1383.1	1376.9	1380.0	1387.2	1380.0
167.5°	1394.3	1388.2	1391.2	1398.4	1389.2
170°	1403.5	1397.4	1399.4	1406.6	1397.4
172.5°	1409.6	1403.5	1405.5	1412.7	1403.5
175°	1414.7	1407.6	1409.6	1416.8	1406.6
177.5°	1416.8	1409.6	1410.6	1417.8	1408.6
180°	1411.7	1411.7	1411.7	1411.7	1411.7

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	13.32	14.14	14.35	15.18	16.59	16.40	17.21	17.43	18.26	19.66
	3H	14.78	15.51	15.82	16.57	17.99	18.98	19.72	20.02	20.77	22.20
	4H	15.25	15.95	16.31	17.01	18.44	20.23	20.93	21.29	21.99	23.42
	6H	15.54	16.18	16.60	17.24	18.69	21.53	22.17	22.59	23.23	24.68
	8H	15.59	16.21	16.66	17.29	18.73	22.19	22.80	23.25	23.88	25.32
	12H	15.61	16.19	16.68	17.26	18.73	22.91	23.50	23.98	24.57	26.03
4H	2H	14.37	15.07	15.43	16.12	17.55	16.72	17.42	17.78	18.48	19.91
	3H	16.07	16.66	17.14	17.74	19.19	19.51	20.10	20.58	21.18	22.63
	4H	16.69	17.24	17.76	18.31	19.78	20.92	21.47	22.00	22.54	24.01
	6H	17.11	17.58	18.18	18.67	20.13	22.39	22.86	23.47	23.96	25.42
	8H	17.21	17.66	18.29	18.74	20.22	23.15	23.59	24.23	24.68	26.15
	12H	17.25	17.66	18.35	18.76	20.24	23.97	24.38	25.07	25.48	26.96
8H	4H	17.48	17.92	18.56	19.01	20.49	21.07	21.51	22.15	22.60	24.07
	6H	18.11	18.48	19.21	19.61	21.08	22.69	23.06	23.80	24.19	25.67
	8H	18.33	18.66	19.44	19.77	21.26	23.58	23.91	24.69	25.02	26.51
	12H	18.46	18.75	19.58	19.86	21.39	24.57	24.86	25.69	25.97	27.50
12H	4H	17.67	18.08	18.77	19.18	20.66	21.04	21.44	22.14	22.54	24.02
	6H	18.44	18.77	19.55	19.88	21.38	22.72	23.04	23.83	24.16	25.65
	8H	18.74	19.04	19.86	20.14	21.67	23.64	23.93	24.76	25.04	26.57