

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: P999024

Luminaire Tested: SA2XXDIP-B865D1080UB50-4F0-XX-W2A-D1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P999024
REPORT IS A COMBINATION OF REPORTS P984773 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-D1
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

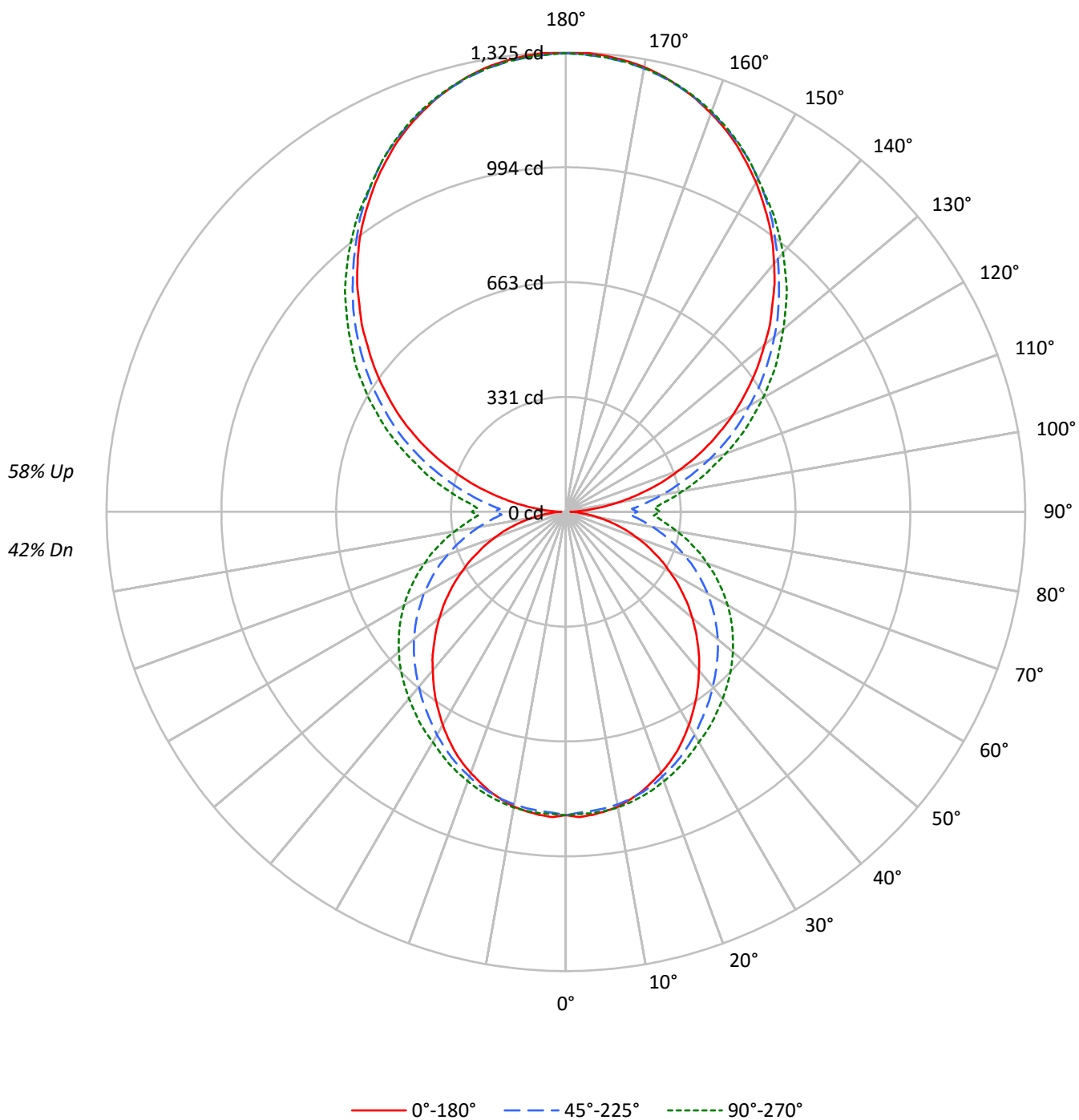
Lumens per Lamp: N/A
Luminaire Lumens: 7041.0 lumens
Efficiency: N/A
Efficacy: 86.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	105	105	105	105	96	96	96	96	79	79	79	63	63	63	49	49	49
1	95	90	86	82	86	82	78	75	67	65	62	54	52	50	41	40	39
2	86	78	71	66	78	71	65	60	58	54	50	46	43	41	36	33	32
3	78	68	60	54	71	62	55	50	51	46	42	41	37	34	31	29	26
4	71	60	52	45	64	55	47	42	45	40	35	36	32	29	28	25	22
5	65	53	45	38	59	49	41	36	40	34	30	32	28	25	25	22	19
6	60	47	39	33	54	43	36	31	36	30	26	29	25	21	22	19	17
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15
8	51	39	31	25	46	35	28	24	29	24	20	24	20	17	19	15	13
9	48	35	28	22	43	32	26	21	27	22	18	22	18	15	17	14	12
10	44	32	25	20	40	30	23	19	25	20	16	20	16	13	16	13	11

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	1.2
10°-20°	237.9	3.4
20°-30°	360.5	5.1
30°-40°	439.0	6.2
40°-50°	472.3	6.7
50°-60°	458.7	6.5
60°-70°	400.6	5.7
70°-80°	308.3	4.4
80°-90°	210.3	3.0
90°-100°	224.3	3.2
100°-110°	364.2	5.2
110°-120°	513.8	7.3
120°-130°	623.7	8.9
130°-140°	673.2	9.6
140°-150°	647.1	9.2
150°-160°	540.5	7.7
160°-170°	358.5	5.1
170°-180°	125.3	1.8
0°-30°	681.4	9.7
0°-40°	1120.4	15.9
0°-60°	2051.4	29.1
0°-90°	2970.5	42.2
90°-120°	1102.2	15.7
90°-150°	3046.2	43.3
90°-180°	4070.0	57.8
0°-180°	7041.0	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	101	206	255	271	13
95°	68	139	217	265	278	73
105°	246	286	355	401	415	261
115°	452	472	527	564	575	446
125°	652	662	700	730	741	583
135°	842	854	869	894	901	651
145°	1020	1028	1035	1044	1045	638
155°	1166	1170	1173	1179	1175	537
165°	1269	1268	1268	1276	1270	358
175°	1320	1317	1315	1323	1316	125
180°	1323	1323	1323	1323	1323	

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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°	13.8	100.7	206.5	254.9	271.4
92.5°	36.0	112.1	190.6	241.2	256.4
95°	68.1	139.0	217.2	265.4	278.5
97.5°	106.0	170.6	248.6	295.5	310.7
100°	150.7	206.5	280.8	327.7	340.6
102.5°	196.2	244.8	317.7	364.5	377.4
105°	246.3	286.4	354.7	401.3	415.2
107.5°	297.6	332.6	396.0	440.2	448.6
110°	345.6	377.6	439.8	480.4	490.9

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	399.1	426.1	483.3	520.6	532.2
115°	451.6	472.2	527.1	564.0	574.6
117.5°	502.8	521.9	569.5	604.3	613.5
120°	555.2	569.3	611.0	646.5	657.2
122.5°	603.2	615.7	657.0	687.9	697.1
125°	652.2	662.2	699.5	730.4	740.7
127.5°	701.3	712.4	742.1	769.3	777.4
130°	747.1	760.4	784.7	812.9	818.6
132.5°	798.4	808.4	828.5	852.1	858.8
135°	841.8	854.1	869.1	894.5	901.3
137.5°	891.0	901.0	909.5	932.5	937.0
140°	934.5	943.2	951.3	971.6	974.8
142.5°	979.2	987.9	991.2	1007.6	1009.5
145°	1020.3	1028.1	1034.8	1043.5	1045.4
147.5°	1058.2	1068.3	1072.7	1076.3	1075.6
150°	1097.3	1104.0	1108.5	1111.8	1108.5
152.5°	1131.9	1138.6	1144.2	1148.6	1144.2
155°	1166.5	1169.8	1173.2	1178.8	1175.4
157.5°	1196.6	1198.9	1201.1	1208.9	1203.3
160°	1223.4	1225.7	1226.8	1233.5	1229.0
162.5°	1248.0	1248.0	1249.1	1256.9	1251.3
165°	1269.2	1268.1	1268.1	1275.9	1270.3
167.5°	1288.2	1284.8	1284.8	1292.6	1287.1
170°	1302.7	1299.3	1298.2	1306.0	1299.3
172.5°	1312.7	1309.4	1308.3	1316.1	1309.4
175°	1320.5	1317.2	1315.0	1322.8	1316.1
177.5°	1325.0	1321.7	1319.4	1326.1	1319.4
180°	1322.8	1322.8	1322.8	1322.8	1322.8

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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	13.58	14.42	14.59	15.45	16.82	16.66	17.49	17.67	18.52	19.90
	3H	15.04	15.80	16.06	16.83	18.23	19.25	20.00	20.27	21.04	22.43
	4H	15.52	16.23	16.55	17.27	18.67	20.50	21.22	21.53	22.26	23.66
	6H	15.80	16.46	16.84	17.51	18.92	21.79	22.46	22.84	23.50	24.91
	8H	15.86	16.49	16.91	17.55	18.96	22.45	23.09	23.50	24.15	25.56
	12H	15.87	16.48	16.93	17.53	18.97	23.18	23.78	24.23	24.83	26.27
4H	2H	14.63	15.35	15.67	16.39	17.79	16.99	17.70	18.02	18.74	20.14
	3H	16.34	16.94	17.38	18.01	19.43	19.77	20.38	20.82	21.45	22.86
	4H	16.96	17.52	18.01	18.58	20.01	21.19	21.75	22.24	22.81	24.24
	6H	17.37	17.86	18.43	18.94	20.37	22.66	23.14	23.72	24.22	25.65
	8H	17.48	17.94	18.54	19.01	20.46	23.41	23.87	24.48	24.94	26.39
	12H	17.52	17.94	18.60	19.02	20.48	24.24	24.66	25.32	25.74	27.20
8H	4H	17.75	18.20	18.81	19.28	20.72	21.33	21.79	22.40	22.86	24.31
	6H	18.38	18.76	19.46	19.88	21.32	22.96	23.34	24.05	24.46	25.90
	8H	18.60	18.94	19.69	20.03	21.50	23.85	24.19	24.94	25.29	26.75
	12H	18.73	19.03	19.83	20.13	21.63	24.84	25.14	25.94	26.24	27.74
12H	4H	17.94	18.36	19.02	19.45	20.90	21.31	21.72	22.39	22.81	24.26
	6H	18.71	19.05	19.80	20.15	21.61	22.99	23.32	24.08	24.42	25.88
	8H	19.01	19.31	20.11	20.41	21.91	23.91	24.21	25.01	25.31	26.81