

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: P997682

Luminaire Tested: SA2XXDP-B865DB50-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997682
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-14)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDP-B865DB50-4F0-XX-W2A-D
Description: Define 2 Direct Recessed with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

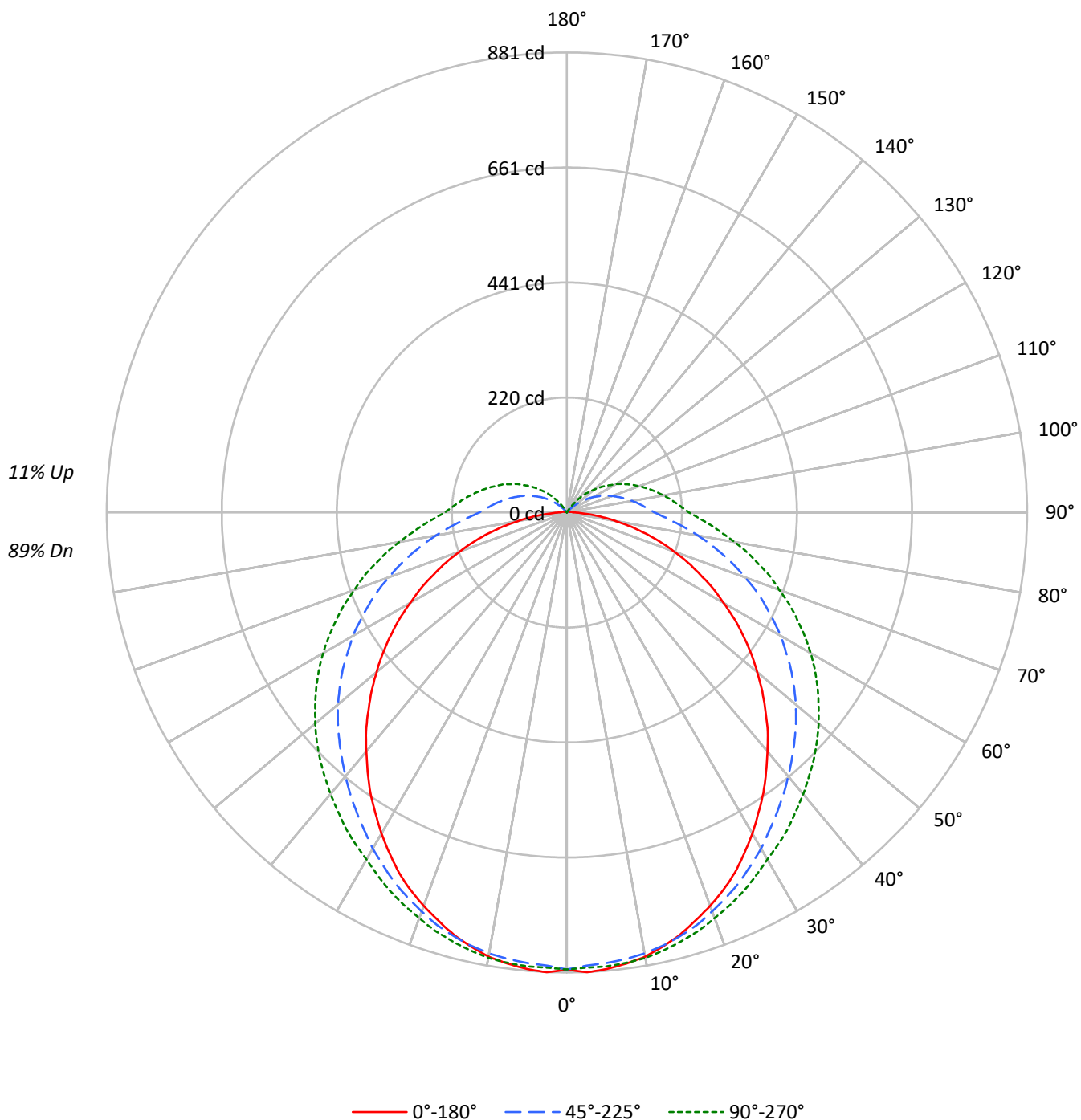
Lumens per Lamp: N/A
Luminaire Lumens: 3339.0 lumens
Efficiency: N/A
Efficacy: 71.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 46.8
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	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92
1	104	98	93	88	100	95	90	86	88	85	81	82	79	77	77	75	72
2	94	84	77	70	90	81	74	68	76	70	65	71	66	62	66	62	59
3	85	73	64	57	81	71	63	56	66	59	54	62	56	51	58	53	49
4	77	64	55	48	74	62	54	47	58	51	45	55	48	43	51	46	42
5	71	57	48	41	68	56	47	40	52	44	39	49	42	37	46	40	36
6	65	51	42	35	63	50	41	35	47	39	34	44	37	32	42	36	31
7	60	46	37	31	58	45	37	31	43	35	30	40	34	29	38	32	28
8	56	42	34	28	54	41	33	27	39	32	26	37	30	25	35	29	25
9	52	39	30	25	50	38	30	24	36	29	24	34	27	23	32	26	22
10	49	36	28	22	47	35	27	22	33	26	21	31	25	21	30	24	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13852	13852	13852
5°	13945	13764	13864
10°	13883	13780	13923
15°	13716	13759	13925
20°	13501	13693	13929
25°	13290	13644	13978
30°	12981	13584	14025
35°	12671	13552	14263
40°	12342	13628	14545
45°	12037	13799	14963
50°	11712	14086	15490
55°	11376	14456	16169
60°	10960	14978	17064
65°	10544	15675	18241
70°	10094	16786	20017
75°	9541	18849	23192
80°	8669	23236	29708
85°	8300	37323	50218

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 92030 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.0	2.5
10°-20°	237.9	7.1
20°-30°	360.5	10.8
30°-40°	439.0	13.1
40°-50°	472.3	14.1
50°-60°	458.7	13.7
60°-70°	400.6	12.0
70°-80°	308.3	9.2
80°-90°	206.5	6.2
90°-100°	142.5	4.3
100°-110°	104.0	3.1
110°-120°	68.7	2.1
120°-130°	38.3	1.1
130°-140°	16.1	0.5
140°-150°	2.7	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	681.4	20.4
0°-40°	1120.4	33.6
0°-60°	2051.4	61.4
0°-90°	2966.8	88.9
90°-120°	315.2	9.4
90°-150°	372.2	11.1
90°-180°	372.0	11.1
0°-180°	3339.0	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°	13	86	167	218	233	9
95°	10	70	146	194	209	8
105°	6	43	109	154	167	7
115°	5	19	76	114	128	5
125°	2	2	43	77	89	3
135°	1	1	14	41	51	1
145°	0	0	0	8	14	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

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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°	12.7	86.2	167.4	218.1	233.4
92.5°	11.4	78.6	156.0	205.5	220.7
95°	10.1	69.8	145.8	194.0	209.3
97.5°	8.9	63.4	137.0	183.9	199.1
100°	8.9	55.8	126.8	173.7	187.7
102.5°	7.6	49.5	117.9	163.6	177.6
105°	6.3	43.1	109.1	153.5	167.4
107.5°	6.3	36.8	100.2	143.3	157.3
110°	5.1	30.4	92.6	133.2	147.1

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.1	25.4	83.7	124.3	138.2
115°	5.1	19.0	76.1	114.1	128.1
117.5°	3.8	14.0	67.2	105.3	117.9
120°	3.8	8.9	59.6	95.1	109.1
122.5°	3.8	5.1	52.0	86.2	97.7
125°	2.5	2.5	43.1	77.4	88.8
127.5°	2.5	1.3	35.5	67.2	78.6
130°	2.5	1.3	27.9	58.3	68.5
132.5°	2.5	1.3	20.3	49.5	59.6
135°	1.3	1.3	14.0	40.6	50.7
137.5°	1.3	1.3	7.6	31.7	40.6
140°	1.3	0.0	2.5	22.8	30.4
142.5°	1.3	0.0	0.0	15.2	21.6
145°	0.0	0.0	0.0	7.6	14.0
147.5°	0.0	0.0	0.0	1.3	5.1
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

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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	19.52	21.00	20.05	21.53	22.11	21.37	22.85	21.90	23.38	23.96
	3H	21.40	22.76	21.94	23.29	23.91	24.03	25.39	24.57	25.92	26.54
	4H	22.13	23.42	22.69	23.97	24.60	25.34	26.62	25.90	27.18	27.81
	6H	22.69	23.89	23.26	24.46	25.10	26.71	27.91	27.29	28.48	29.12
	8H	22.89	24.04	23.47	24.63	25.28	27.43	28.58	28.02	29.17	29.82
	12H	23.04	24.14	23.63	24.72	25.40	28.25	29.35	28.84	29.94	30.62
4H	2H	20.65	21.93	21.21	22.48	23.11	22.00	23.29	22.56	23.84	24.47
	3H	22.82	23.93	23.40	24.52	25.17	24.94	26.04	25.51	26.63	27.28
	4H	23.74	24.75	24.33	25.35	26.03	26.46	27.47	27.05	28.07	28.75
	6H	24.49	25.39	25.10	26.01	26.71	28.05	28.95	28.66	29.57	30.27
	8H	24.77	25.62	25.39	26.24	26.95	28.89	29.74	29.51	30.36	31.07
	12H	25.00	25.77	25.63	26.42	27.13	29.85	30.62	30.49	31.27	31.98
8H	4H	24.67	25.51	25.29	26.14	26.85	26.86	27.71	27.48	28.33	29.04
	6H	25.73	26.45	26.38	27.12	27.83	28.72	29.44	29.36	30.10	30.81
	8H	26.19	26.84	26.85	27.51	28.24	29.76	30.41	30.42	31.08	31.80
	12H	26.60	27.17	27.26	27.84	28.62	30.97	31.55	31.63	32.21	33.00
12H	4H	24.94	25.71	25.57	26.36	27.07	26.92	27.68	27.55	28.34	29.05
	6H	26.16	26.81	26.82	27.49	28.21	28.85	29.50	29.51	30.17	30.89
	8H	26.78	27.36	27.44	28.03	28.81	30.00	30.58	30.66	31.24	32.03