

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: P997616

Luminaire Tested: SA2XXDP-B485DB35-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997616
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-B485DB35-4F0-XX-W2A-D
Description: Define 2 Direct Recessed with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

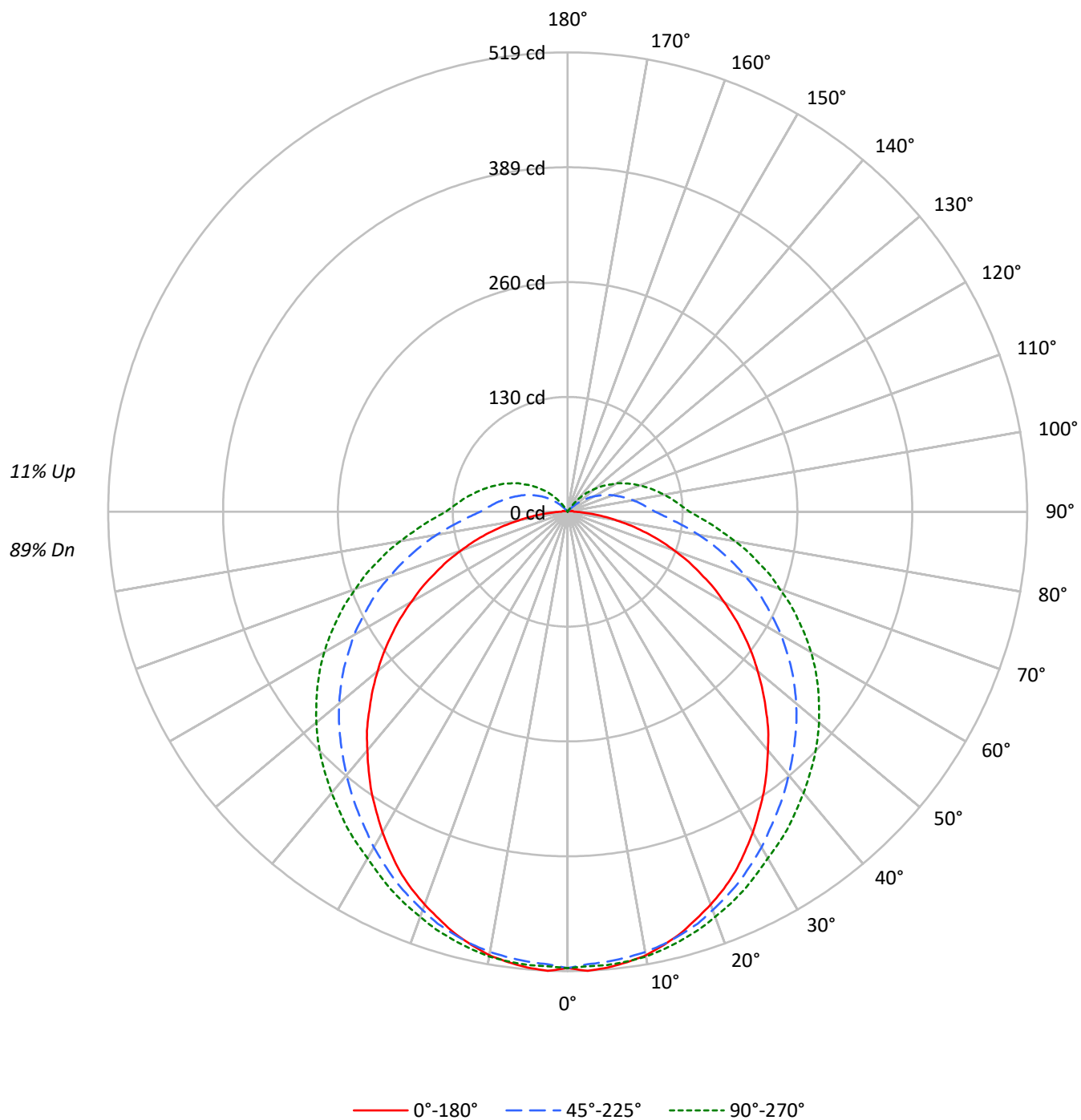
Lumens per Lamp: N/A
Luminaire Lumens: 1967.0 lumens
Efficiency: N/A
Efficacy: 82.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 24
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°	8160	8160	8160
5°	8215	8109	8167
10°	8178	8117	8202
15°	8081	8105	8204
20°	7954	8067	8205
25°	7830	8038	8233
30°	7648	8002	8262
35°	7465	7985	8402
40°	7272	8028	8567
45°	7092	8128	8813
50°	6900	8296	9126
55°	6701	8517	9527
60°	6458	8823	10052
65°	6214	9233	10746
70°	5947	9890	11793
75°	5621	11100	13663
80°	5105	13692	17502
85°	4886	21976	29586

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 54217 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.9	2.5
10°-20°	140.2	7.1
20°-30°	212.4	10.8
30°-40°	258.6	13.1
40°-50°	278.2	14.1
50°-60°	270.2	13.7
60°-70°	236.0	12.0
70°-80°	181.6	9.2
80°-90°	121.6	6.2
90°-100°	83.9	4.3
100°-110°	61.3	3.1
110°-120°	40.4	2.1
120°-130°	22.5	1.1
130°-140°	9.5	0.5
140°-150°	1.6	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	401.4	20.4
0°-40°	660.0	33.6
0°-60°	1208.5	61.4
0°-90°	1747.7	88.9
90°-120°	185.7	9.4
90°-150°	219.2	11.1
90°-180°	219.0	11.1
0°-180°	1967.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	516	516	516	516	516	
5°	517	515	510	515	514	49
15°	493	495	495	501	501	139
25°	448	454	460	469	471	206
35°	386	399	413	430	435	241
45°	317	337	363	386	394	245
55°	243	270	309	336	345	217
65°	166	202	246	277	287	165
75°	92	134	182	214	223	97
85°	27	73	121	152	163	28
90°	8	51	99	128	138	5
95°	6	41	86	114	123	5
105°	4	25	64	90	99	4
115°	3	11	45	67	76	3
125°	2	2	25	46	52	2
135°	1	1	8	24	30	1
145°	0	0	0	4	8	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°	515.5	515.5	515.5	515.5	515.5
2.5°	519.2	517.0	511.8	515.5	514.0
5°	517.0	514.8	510.3	514.8	514.0
7.5°	513.3	511.8	508.0	513.3	512.5
10°	508.8	507.3	505.0	511.0	510.3
12.5°	501.3	502.1	500.6	506.5	505.8
15°	493.1	494.6	494.6	501.3	500.6
17.5°	482.6	485.6	487.9	494.6	494.6
20°	472.2	475.9	478.9	487.1	487.1
22.5°	461.0	465.5	469.9	478.2	479.6
25°	448.3	453.5	460.2	469.2	471.4
27.5°	433.3	441.5	449.0	460.2	461.7
30°	418.4	428.1	437.8	449.8	452.0
32.5°	401.9	413.2	425.1	439.3	443.8
35°	386.3	399.0	413.2	429.6	434.8
37.5°	369.1	383.3	401.2	419.1	424.4
40°	351.9	368.3	388.5	407.9	414.6
42.5°	335.5	351.9	375.8	397.5	404.2
45°	316.8	336.9	363.1	386.3	393.7
47.5°	298.8	320.5	350.4	374.3	382.5
50°	280.2	303.3	336.9	362.4	370.6
52.5°	262.2	286.9	322.8	348.9	357.9
55°	242.8	269.7	308.6	335.5	345.2
57.5°	224.1	254.0	292.9	322.0	331.7
60°	204.0	236.1	278.7	307.1	317.5
62.5°	186.0	219.7	262.2	292.9	302.6
65°	165.9	202.5	246.5	277.2	286.9
67.5°	147.9	186.0	230.9	261.5	271.9
70°	128.5	167.4	213.7	245.8	254.8
72.5°	110.6	150.9	198.0	229.4	240.6
75°	91.9	133.7	181.5	213.7	223.4
77.5°	74.0	117.3	165.9	198.0	208.4
80°	56.0	101.6	150.2	181.5	192.0
82.5°	41.1	85.9	135.2	166.6	176.3
85°	26.9	73.2	121.0	152.4	162.9
87.5°	16.4	61.3	109.1	139.7	149.4
90°	7.5	50.8	98.6	128.5	137.5
92.5°	6.7	46.3	91.9	121.0	130.0
95°	6.0	41.1	85.9	114.3	123.3
97.5°	5.2	37.4	80.7	108.3	117.3
100°	5.2	32.9	74.7	102.4	110.6
102.5°	4.5	29.1	69.5	96.4	104.6
105°	3.7	25.4	64.3	90.4	98.6
107.5°	3.7	21.7	59.0	84.4	92.6
110°	3.0	17.9	54.5	78.4	86.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.0	14.9	49.3	73.2	81.4
115°	3.0	11.2	44.8	67.2	75.5
117.5°	2.2	8.2	39.6	62.0	69.5
120°	2.2	5.2	35.1	56.0	64.3
122.5°	2.2	3.0	30.6	50.8	57.5
125°	1.5	1.5	25.4	45.6	52.3
127.5°	1.5	0.7	20.9	39.6	46.3
130°	1.5	0.7	16.4	34.4	40.3
132.5°	1.5	0.7	12.0	29.1	35.1
135°	0.7	0.7	8.2	23.9	29.9
137.5°	0.7	0.7	4.5	18.7	23.9
140°	0.7	0.0	1.5	13.4	17.9
142.5°	0.7	0.0	0.0	9.0	12.7
145°	0.0	0.0	0.0	4.5	8.2
147.5°	0.0	0.0	0.0	0.7	3.0
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	17.68	19.16	18.21	19.69	20.27	19.53	21.02	20.06	21.54	22.12
	3H	19.56	20.92	20.10	21.46	22.07	22.19	23.55	22.73	24.08	24.70
	4H	20.29	21.58	20.85	22.13	22.76	23.50	24.79	24.06	25.34	25.97
	6H	20.85	22.05	21.43	22.62	23.26	24.88	26.07	25.45	26.64	27.28
	8H	21.05	22.20	21.63	22.79	23.44	25.59	26.74	26.18	27.33	27.98
	12H	21.20	22.30	21.79	22.88	23.56	26.41	27.52	27.00	28.10	28.78
4H	2H	18.81	20.09	19.37	20.65	21.27	20.16	21.45	20.72	22.00	22.63
	3H	20.99	22.09	21.56	22.68	23.33	23.10	24.20	23.67	24.79	25.44
	4H	21.90	22.91	22.49	23.51	24.19	24.62	25.63	25.21	26.23	26.91
	6H	22.65	23.55	23.26	24.18	24.87	26.21	27.11	26.82	27.74	28.43
	8H	22.93	23.78	23.55	24.40	25.11	27.05	27.90	27.67	28.52	29.23
	12H	23.16	23.93	23.80	24.58	25.29	28.01	28.78	28.65	29.43	30.14
8H	4H	22.83	23.68	23.45	24.30	25.01	25.03	25.87	25.64	26.49	27.20
	6H	23.89	24.61	24.54	25.28	25.99	26.88	27.60	27.53	28.26	28.97
	8H	24.35	25.00	25.01	25.67	26.40	27.92	28.57	28.58	29.24	29.96
	12H	24.76	25.34	25.42	26.00	26.79	29.13	29.71	29.79	30.37	31.16
12H	4H	23.10	23.87	23.74	24.52	25.23	25.08	25.85	25.72	26.50	27.21
	6H	24.32	24.97	24.98	25.65	26.37	27.01	27.66	27.67	28.33	29.06
	8H	24.94	25.52	25.61	26.19	26.97	28.16	28.74	28.82	29.40	30.19