

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: P997622

Luminaire Tested: SA2XXDP-B485DB50-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997622
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-B485DB50-4F0-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

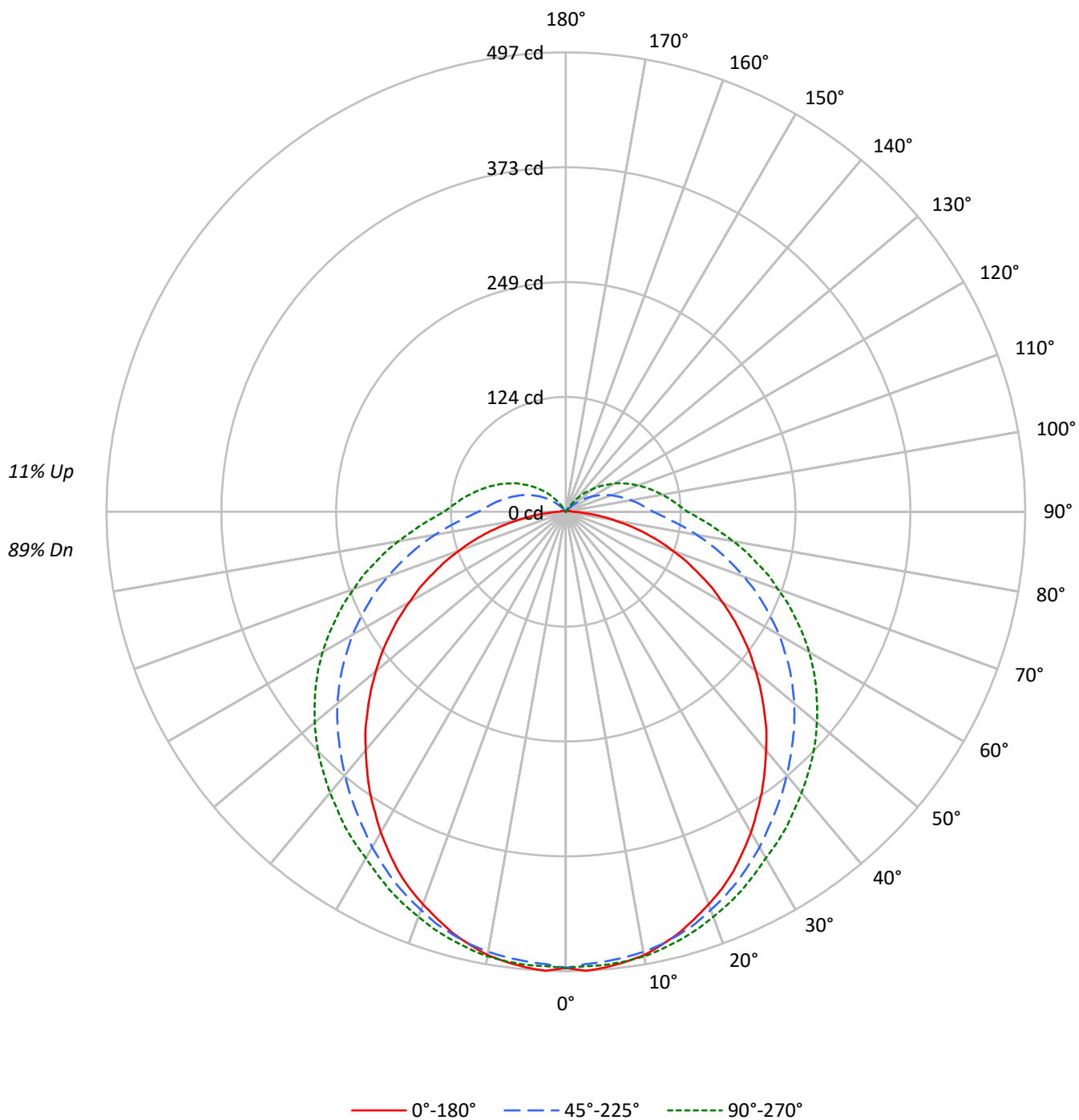
Lumens per Lamp: N/A
Luminaire Lumens: 1883.0 lumens
Efficiency: N/A
Efficacy: 78.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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°	7812	7812	7812
5°	7864	7762	7819
10°	7829	7772	7852
15°	7735	7760	7853
20°	7614	7722	7855
25°	7495	7695	7882
30°	7320	7660	7909
35°	7146	7643	8045
40°	6962	7685	8201
45°	6787	7781	8437
50°	6605	7944	8735
55°	6414	8152	9118
60°	6183	8447	9624
65°	5948	8839	10285
70°	5693	9465	11288
75°	5382	10630	13076
80°	4886	13108	16755
85°	4668	21050	28315

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 51894 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.8	2.5
10°-20°	134.2	7.1
20°-30°	203.3	10.8
30°-40°	247.6	13.1
40°-50°	266.4	14.1
50°-60°	258.7	13.7
60°-70°	225.9	12.0
70°-80°	173.9	9.2
80°-90°	116.4	6.2
90°-100°	80.3	4.3
100°-110°	58.7	3.1
110°-120°	38.7	2.1
120°-130°	21.6	1.1
130°-140°	9.1	0.5
140°-150°	1.5	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	384.3	20.4
0°-40°	631.8	33.6
0°-60°	1156.9	61.4
0°-90°	1673.1	88.9
90°-120°	177.7	9.4
90°-150°	209.9	11.1
90°-180°	210.0	11.2
0°-180°	1883.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	494	494	494	494	494	
5°	495	493	488	493	492	47
15°	472	474	474	480	479	133
25°	429	434	441	449	451	197
35°	370	382	396	411	416	231
45°	303	323	348	370	377	234
55°	232	258	295	321	330	208
65°	159	194	236	265	275	158
75°	88	128	174	204	214	93
85°	26	70	116	146	156	27
90°	7	49	94	123	132	5
95°	6	39	82	109	118	4
105°	4	24	62	86	94	4
115°	3	11	43	64	72	3
125°	1	1	24	44	50	1
135°	1	1	8	23	29	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°	493.5	493.5	493.5	493.5	493.5
2.5°	497.1	494.9	489.9	493.5	492.1
5°	494.9	492.8	488.5	492.8	492.1
7.5°	491.3	489.9	486.3	491.3	490.6
10°	487.1	485.6	483.5	489.2	488.5
12.5°	479.9	480.6	479.2	484.9	484.2
15°	472.0	473.5	473.5	479.9	479.2
17.5°	462.0	464.9	467.0	473.5	473.5
20°	452.0	455.6	458.4	466.3	466.3
22.5°	441.3	445.6	449.9	457.7	459.2
25°	429.1	434.1	440.6	449.2	451.3
27.5°	414.8	422.7	429.8	440.6	442.0
30°	400.5	409.8	419.1	430.6	432.7
32.5°	384.8	395.5	407.0	420.5	424.8
35°	369.8	381.9	395.5	411.2	416.3
37.5°	353.3	366.9	384.1	401.2	406.2
40°	336.9	352.6	371.9	390.5	396.9
42.5°	321.1	336.9	359.7	380.5	386.9
45°	303.2	322.6	347.6	369.8	376.9
47.5°	286.1	306.8	335.4	358.3	366.2
50°	268.2	290.4	322.6	346.9	354.7
52.5°	251.0	274.6	309.0	334.0	342.6
55°	232.4	258.2	295.4	321.1	330.4
57.5°	214.6	243.2	280.4	308.3	317.6
60°	195.3	226.0	266.8	294.0	304.0
62.5°	178.1	210.3	251.0	280.4	289.7
65°	158.8	193.8	236.0	265.3	274.6
67.5°	141.6	178.1	221.0	250.3	260.3
70°	123.0	160.2	204.5	235.3	243.9
72.5°	105.9	144.5	189.5	219.6	230.3
75°	88.0	128.0	173.8	204.5	213.8
77.5°	70.8	112.3	158.8	189.5	199.5
80°	53.6	97.3	143.8	173.8	183.8
82.5°	39.3	82.2	129.5	159.5	168.8
85°	25.7	70.1	115.9	145.9	155.9
87.5°	15.7	58.6	104.4	133.7	143.0
90°	7.2	48.6	94.4	123.0	131.6
92.5°	6.4	44.3	88.0	115.9	124.4
95°	5.7	39.3	82.2	109.4	118.0
97.5°	5.0	35.8	77.2	103.7	112.3
100°	5.0	31.5	71.5	98.0	105.9
102.5°	4.3	27.9	66.5	92.3	100.1
105°	3.6	24.3	61.5	86.5	94.4
107.5°	3.6	20.7	56.5	80.8	88.7
110°	2.9	17.2	52.2	75.1	83.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.9	14.3	47.2	70.1	78.0
115°	2.9	10.7	42.9	64.4	72.2
117.5°	2.1	7.9	37.9	59.4	66.5
120°	2.1	5.0	33.6	53.6	61.5
122.5°	2.1	2.9	29.3	48.6	55.1
125°	1.4	1.4	24.3	43.6	50.1
127.5°	1.4	0.7	20.0	37.9	44.3
130°	1.4	0.7	15.7	32.9	38.6
132.5°	1.4	0.7	11.4	27.9	33.6
135°	0.7	0.7	7.9	22.9	28.6
137.5°	0.7	0.7	4.3	17.9	22.9
140°	0.7	0.0	1.4	12.9	17.2
142.5°	0.7	0.0	0.0	8.6	12.2
145°	0.0	0.0	0.0	4.3	7.9
147.5°	0.0	0.0	0.0	0.7	2.9
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	17.53	19.01	18.06	19.54	20.12	19.38	20.86	19.91	21.39	21.97
	3H	19.41	20.77	19.95	21.30	21.92	22.04	23.40	22.58	23.93	24.55
	4H	20.14	21.43	20.70	21.98	22.61	23.35	24.63	23.91	25.19	25.82
	6H	20.70	21.90	21.28	22.47	23.11	24.72	25.92	25.30	26.49	27.13
	8H	20.90	22.05	21.48	22.64	23.29	25.44	26.59	26.03	27.18	27.83
	12H	21.04	22.15	21.63	22.73	23.41	26.26	27.36	26.85	27.95	28.63
4H	2H	18.66	19.94	19.22	20.49	21.12	20.01	21.30	20.57	21.85	22.48
	3H	20.83	21.94	21.41	22.53	23.18	22.95	24.05	23.52	24.64	25.29
	4H	21.75	22.76	22.34	23.36	24.04	24.47	25.48	25.06	26.08	26.76
	6H	22.50	23.40	23.11	24.02	24.72	26.06	26.96	26.67	27.58	28.28
	8H	22.78	23.63	23.40	24.25	24.96	26.90	27.75	27.52	28.37	29.08
	12H	23.01	23.77	23.64	24.43	25.14	27.86	28.63	28.50	29.28	29.99
8H	4H	22.68	23.52	23.30	24.15	24.86	24.87	25.72	25.49	26.34	27.05
	6H	23.74	24.46	24.39	25.13	25.84	26.73	27.45	27.37	28.11	28.82
	8H	24.20	24.85	24.86	25.52	26.24	27.77	28.42	28.43	29.09	29.81
	12H	24.60	25.18	25.26	25.85	26.63	28.98	29.56	29.64	30.22	31.01
12H	4H	22.95	23.72	23.58	24.37	25.08	24.93	25.69	25.56	26.35	27.06
	6H	24.17	24.82	24.83	25.50	26.22	26.86	27.51	27.51	28.18	28.90
	8H	24.79	25.37	25.45	26.04	26.82	28.01	28.59	28.67	29.25	30.04