

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: P997562

Luminaire Tested: SA2XXDP-B1005DB50-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997562
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-B1005DB50-4F0-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

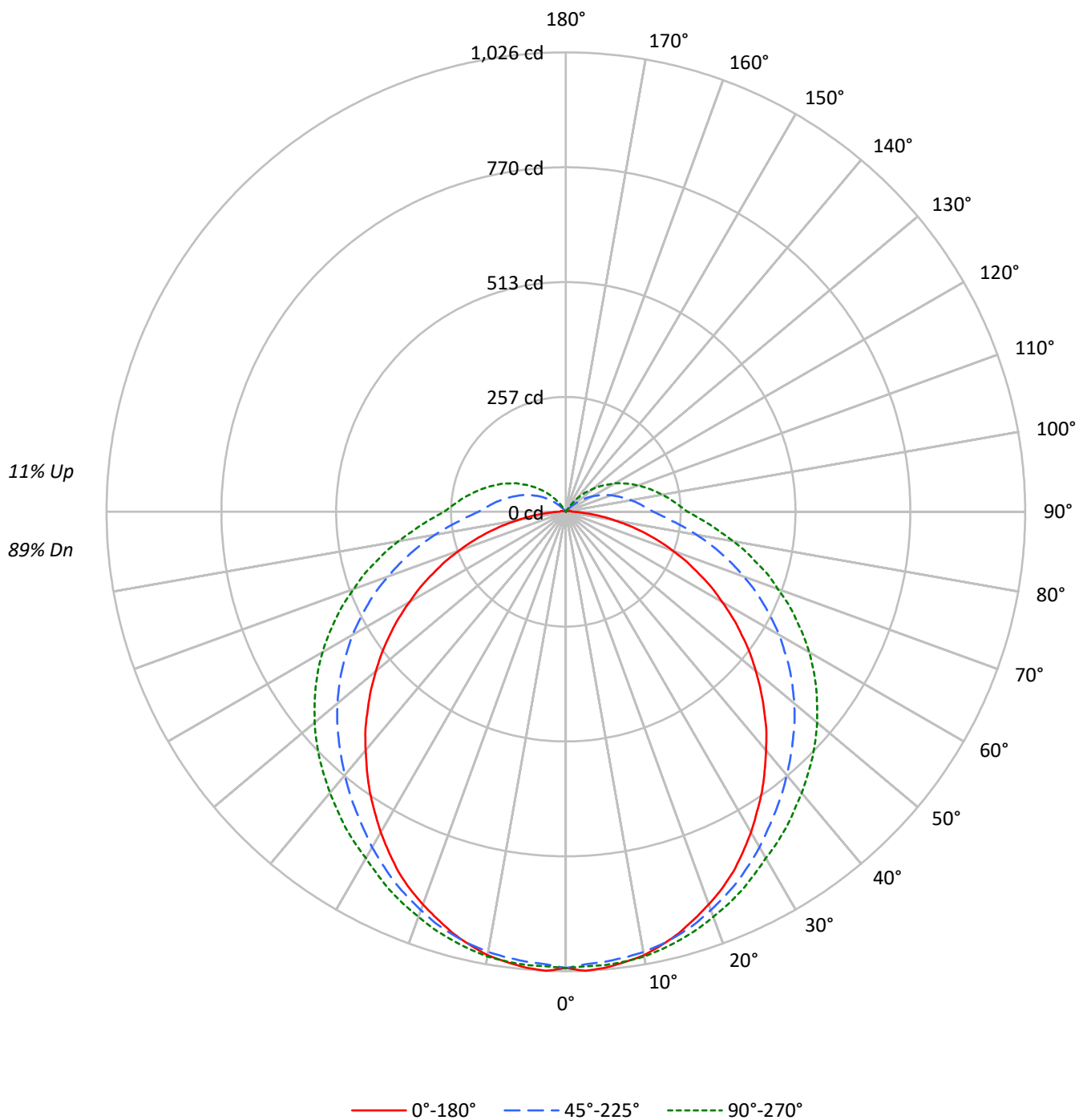
Lumens per Lamp: N/A
Luminaire Lumens: 3888.0 lumens
Efficiency: N/A
Efficacy: 63.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 61.3
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°	16130	16130	16130
5°	16238	16026	16144
10°	16165	16046	16212
15°	15973	16021	16214
20°	15722	15946	16219
25°	15476	15889	16275
30°	15116	15818	16330
35°	14754	15780	16609
40°	14374	15868	16936
45°	14016	16066	17423
50°	13638	16401	18039
55°	13244	16832	18830
60°	12765	17438	19869
65°	12278	18252	21241
70°	11756	19549	23307
75°	11107	21950	27008
80°	10100	27055	34594
85°	9662	43444	58464

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 107199 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.6	2.5
10°-20°	277.0	7.1
20°-30°	419.8	10.8
30°-40°	511.2	13.1
40°-50°	550.0	14.1
50°-60°	534.1	13.7
60°-70°	466.4	12.0
70°-80°	359.0	9.2
80°-90°	240.4	6.2
90°-100°	165.9	4.3
100°-110°	121.1	3.1
110°-120°	80.0	2.1
120°-130°	44.6	1.1
130°-140°	18.7	0.5
140°-150°	3.2	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	793.4	20.4
0°-40°	1304.6	33.6
0°-60°	2388.7	61.4
0°-90°	3454.6	88.9
90°-120°	367.0	9.4
90°-150°	433.4	11.1
90°-180°	433.0	11.1
0°-180°	3888.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1019	1019	1019	1019	1019	
5°	1022	1018	1009	1018	1016	97
15°	975	978	978	991	989	275
25°	886	896	910	927	932	407
35°	764	789	817	849	860	477
45°	626	666	718	764	778	483
55°	480	533	610	663	682	429
65°	328	400	487	548	567	326
75°	182	264	359	422	442	192
85°	53	145	239	301	322	56
90°	15	100	195	254	272	10
95°	12	81	170	226	244	9
105°	7	50	127	179	195	8
115°	6	22	89	133	149	5
125°	3	3	50	90	103	3
135°	2	2	16	47	59	2
145°	0	0	0	9	16	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°	1019.0	1019.0	1019.0	1019.0	1019.0
2.5°	1026.3	1021.9	1011.6	1019.0	1016.0
5°	1021.9	1017.5	1008.6	1017.5	1016.0
7.5°	1014.5	1011.6	1004.2	1014.5	1013.1
10°	1005.7	1002.7	998.3	1010.1	1008.6
12.5°	990.9	992.4	989.4	1001.2	999.8
15°	974.7	977.6	977.6	990.9	989.4
17.5°	954.0	959.9	964.3	977.6	977.6
20°	933.3	940.7	946.6	962.8	962.8
22.5°	911.2	920.0	928.9	945.1	948.1
25°	886.1	896.4	909.7	927.4	931.8
27.5°	856.5	872.8	887.5	909.7	912.6
30°	827.0	846.2	865.4	889.0	893.4
32.5°	794.5	816.6	840.3	868.3	877.2
35°	763.5	788.6	816.6	849.1	859.5
37.5°	729.5	757.6	793.0	828.5	838.8
40°	695.6	728.0	767.9	806.3	819.6
42.5°	663.1	695.6	742.8	785.6	798.9
45°	626.1	666.0	717.7	763.5	778.3
47.5°	590.7	633.5	692.6	739.9	756.1
50°	553.8	599.6	666.0	716.2	732.5
52.5°	518.3	567.1	638.0	689.6	707.4
55°	479.9	533.1	609.9	663.1	682.3
57.5°	443.0	502.1	578.9	636.5	655.7
60°	403.2	466.7	550.8	606.9	627.6
62.5°	367.7	434.2	518.3	578.9	598.1
65°	327.8	400.2	487.3	547.9	567.1
67.5°	292.4	367.7	456.3	516.9	537.5
70°	254.0	330.8	422.4	485.9	503.6
72.5°	218.6	298.3	391.3	453.4	475.5
75°	181.6	264.3	358.9	422.4	441.6
77.5°	146.2	231.9	327.8	391.3	412.0
80°	110.8	200.8	296.8	358.9	379.5
82.5°	81.2	169.8	267.3	329.3	348.5
85°	53.2	144.7	239.2	301.3	321.9
87.5°	32.5	121.1	215.6	276.2	295.4
90°	14.8	100.4	194.9	254.0	271.7
92.5°	13.3	91.6	181.6	239.2	257.0
95°	11.8	81.2	169.8	225.9	243.7
97.5°	10.3	73.8	159.5	214.1	231.9
100°	10.3	65.0	147.7	202.3	218.6
102.5°	8.9	57.6	137.3	190.5	206.7
105°	7.4	50.2	127.0	178.7	194.9
107.5°	7.4	42.8	116.7	166.9	183.1
110°	5.9	35.4	107.8	155.1	171.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.9	29.5	97.5	144.7	161.0
115°	5.9	22.2	88.6	132.9	149.2
117.5°	4.4	16.2	78.3	122.6	137.3
120°	4.4	10.3	69.4	110.8	127.0
122.5°	4.4	5.9	60.5	100.4	113.7
125°	3.0	3.0	50.2	90.1	103.4
127.5°	3.0	1.5	41.3	78.3	91.6
130°	3.0	1.5	32.5	67.9	79.7
132.5°	3.0	1.5	23.6	57.6	69.4
135°	1.5	1.5	16.2	47.3	59.1
137.5°	1.5	1.5	8.9	36.9	47.3
140°	1.5	0.0	3.0	26.6	35.4
142.5°	1.5	0.0	0.0	17.7	25.1
145°	0.0	0.0	0.0	8.9	16.2
147.5°	0.0	0.0	0.0	1.5	5.9
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	20.05	21.53	20.58	22.06	22.64	21.90	23.38	22.43	23.91	24.49
	3H	21.93	23.29	22.47	23.82	24.44	24.56	25.92	25.10	26.45	27.07
	4H	22.66	23.95	23.22	24.50	25.13	25.87	27.15	26.43	27.71	28.33
	6H	23.22	24.42	23.79	24.99	25.63	27.24	28.44	27.81	29.01	29.65
	8H	23.42	24.57	24.00	25.15	25.80	27.96	29.11	28.54	29.70	30.35
	12H	23.56	24.67	24.15	25.25	25.93	28.78	29.88	29.37	30.46	31.15
4H	2H	21.17	22.46	21.73	23.01	23.64	22.53	23.82	23.09	24.37	25.00
	3H	23.35	24.45	23.92	25.05	25.70	25.47	26.57	26.04	27.16	27.81
	4H	24.27	25.28	24.86	25.88	26.56	26.98	28.00	27.58	28.60	29.28
	6H	25.02	25.92	25.63	26.54	27.24	28.58	29.48	29.19	30.10	30.80
	8H	25.30	26.14	25.92	26.77	27.48	29.42	30.27	30.04	30.89	31.60
	12H	25.53	26.29	26.16	26.95	27.66	30.38	31.15	31.02	31.80	32.51
8H	4H	25.20	26.04	25.81	26.67	27.38	27.39	28.24	28.01	28.86	29.57
	6H	26.26	26.98	26.91	27.64	28.35	29.25	29.97	29.89	30.63	31.34
	8H	26.72	27.37	27.38	28.04	28.76	30.29	30.94	30.94	31.61	32.33
	12H	27.12	27.70	27.78	28.37	29.15	31.50	32.08	32.16	32.74	33.53
12H	4H	25.47	26.23	26.10	26.89	27.60	27.45	28.21	28.08	28.87	29.58
	6H	26.69	27.34	27.35	28.01	28.74	29.38	30.03	30.03	30.70	31.42
	8H	27.31	27.89	27.97	28.56	29.34	30.53	31.11	31.19	31.77	32.56