

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: P997543

Luminaire Tested: SA2XXDP-B1005DB2750-4F0-XX-W2A-D_3000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997543
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-B1005DB2750-4F0-XX-W2A-D_3000K
Description: Define 2 Direct Recessed with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

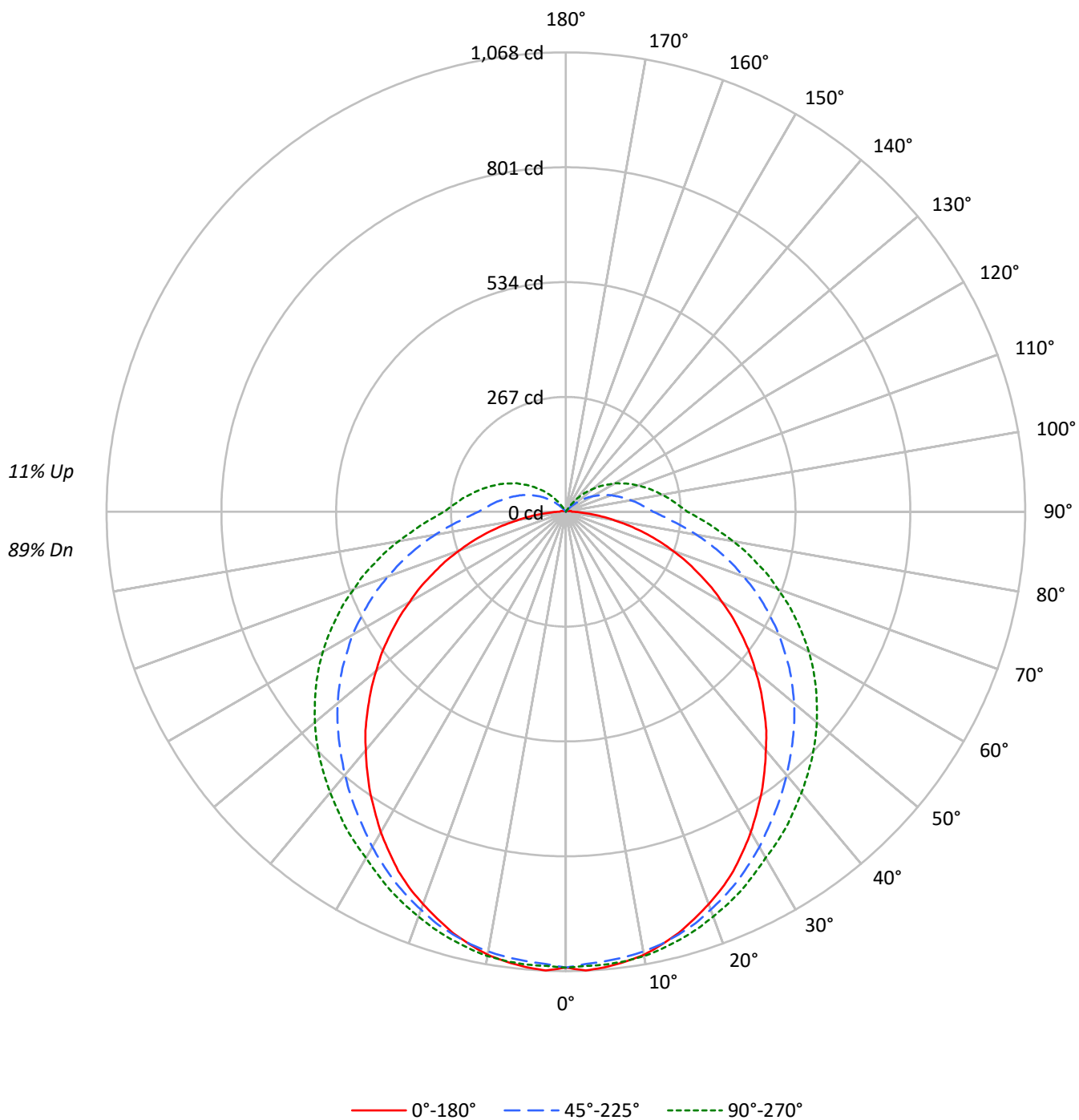
Lumens per Lamp: N/A
Luminaire Lumens: 4044.0 lumens
Efficiency: N/A
Efficacy: 66.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 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°	16776	16776	16776
5°	16889	16670	16792
10°	16813	16689	16863
15°	16614	16663	16865
20°	16353	16586	16870
25°	16096	16526	16928
30°	15723	16452	16986
35°	15345	16414	17276
40°	14950	16504	17616
45°	14580	16711	18121
50°	14185	17058	18763
55°	13777	17508	19583
60°	13274	18137	20667
65°	12772	18986	22091
70°	12228	20332	24242
75°	11553	22831	28091
80°	10501	28140	35989
85°	10044	45187	60807

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 111482 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.5	2.5
10°-20°	288.2	7.1
20°-30°	436.6	10.8
30°-40°	531.7	13.1
40°-50°	572.0	14.1
50°-60°	555.5	13.7
60°-70°	485.2	12.0
70°-80°	373.4	9.2
80°-90°	250.1	6.2
90°-100°	172.5	4.3
100°-110°	126.0	3.1
110°-120°	83.2	2.1
120°-130°	46.3	1.1
130°-140°	19.5	0.5
140°-150°	3.3	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	825.2	20.4
0°-40°	1356.9	33.6
0°-60°	2484.5	61.4
0°-90°	3593.2	88.9
90°-120°	381.7	9.4
90°-150°	450.8	11.1
90°-180°	451.0	11.2
0°-180°	4044.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1060	1060	1060	1060	1060	
5°	1063	1058	1049	1058	1057	101
15°	1014	1017	1017	1031	1029	286
25°	922	932	946	965	969	424
35°	794	820	849	883	894	496
45°	651	693	746	794	810	503
55°	499	554	634	690	710	447
65°	341	416	507	570	590	339
75°	189	275	373	439	459	200
85°	55	150	249	313	335	58
90°	15	104	203	264	283	11
95°	12	84	177	235	253	10
105°	8	52	132	186	203	9
115°	6	23	92	138	155	6
125°	3	3	52	94	108	3
135°	2	2	17	49	61	2
145°	0	0	0	9	17	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°	1059.8	1059.8	1059.8	1059.8	1059.8
2.5°	1067.5	1062.9	1052.2	1059.8	1056.8
5°	1062.9	1058.3	1049.1	1058.3	1056.8
7.5°	1055.2	1052.2	1044.5	1055.2	1053.7
10°	1046.0	1042.9	1038.3	1050.6	1049.1
12.5°	1030.7	1032.2	1029.1	1041.4	1039.9
15°	1013.8	1016.8	1016.8	1030.7	1029.1
17.5°	992.3	998.4	1003.0	1016.8	1016.8
20°	970.8	978.4	984.6	1001.5	1001.5
22.5°	947.7	956.9	966.1	983.0	986.1
25°	921.6	932.4	946.2	964.6	969.2
27.5°	890.9	907.8	923.1	946.2	949.3
30°	860.2	880.1	900.1	924.7	929.3
32.5°	826.4	849.4	874.0	903.2	912.4
35°	794.1	820.2	849.4	883.2	894.0
37.5°	758.8	788.0	824.8	861.7	872.5
40°	723.5	757.3	798.7	838.7	852.5
42.5°	689.7	723.5	772.6	817.2	831.0
45°	651.3	692.7	746.5	794.1	809.5
47.5°	614.4	658.9	720.4	769.5	786.4
50°	576.0	623.6	692.7	745.0	761.9
52.5°	539.1	589.8	663.6	717.3	735.7
55°	499.2	554.5	634.4	689.7	709.6
57.5°	460.8	522.2	602.1	662.0	682.0
60°	419.3	485.4	572.9	631.3	652.8
62.5°	382.5	451.6	539.1	602.1	622.1
65°	341.0	416.3	506.9	569.9	589.8
67.5°	304.1	382.5	474.6	537.6	559.1
70°	264.2	344.1	439.3	505.3	523.8
72.5°	227.3	310.3	407.0	471.6	494.6
75°	188.9	274.9	373.3	439.3	459.3
77.5°	152.1	241.2	341.0	407.0	428.5
80°	115.2	208.9	308.7	373.3	394.8
82.5°	84.5	176.6	278.0	342.5	362.5
85°	55.3	150.5	248.8	313.3	334.8
87.5°	33.8	126.0	224.3	287.2	307.2
90°	15.4	104.4	202.8	264.2	282.6
92.5°	13.8	95.2	188.9	248.8	267.3
95°	12.3	84.5	176.6	235.0	253.4
97.5°	10.8	76.8	165.9	222.7	241.2
100°	10.8	67.6	153.6	210.4	227.3
102.5°	9.2	59.9	142.8	198.1	215.0
105°	7.7	52.2	132.1	185.9	202.8
107.5°	7.7	44.5	121.3	173.6	190.5
110°	6.1	36.9	112.1	161.3	178.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	6.1	30.7	101.4	150.5	167.4
115°	6.1	23.0	92.2	138.2	155.1
117.5°	4.6	16.9	81.4	127.5	142.8
120°	4.6	10.8	72.2	115.2	132.1
122.5°	4.6	6.1	63.0	104.4	118.3
125°	3.1	3.1	52.2	93.7	107.5
127.5°	3.1	1.5	43.0	81.4	95.2
130°	3.1	1.5	33.8	70.7	82.9
132.5°	3.1	1.5	24.6	59.9	72.2
135°	1.5	1.5	16.9	49.2	61.4
137.5°	1.5	1.5	9.2	38.4	49.2
140°	1.5	0.0	3.1	27.6	36.9
142.5°	1.5	0.0	0.0	18.4	26.1
145°	0.0	0.0	0.0	9.2	16.9
147.5°	0.0	0.0	0.0	1.5	6.1
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	20.19	21.67	20.71	22.20	22.78	22.04	23.52	22.56	24.05	24.63
	3H	22.07	23.42	22.61	23.96	24.58	24.70	26.05	25.24	26.59	27.20
	4H	22.80	24.08	23.36	24.64	25.27	26.00	27.29	26.56	27.84	28.47
	6H	23.36	24.56	23.93	25.12	25.77	27.38	28.58	27.95	29.14	29.79
	8H	23.55	24.70	24.14	25.29	25.94	28.10	29.25	28.68	29.84	30.49
	12H	23.70	24.80	24.29	25.39	26.07	28.92	30.02	29.51	30.60	31.28
4H	2H	21.31	22.60	21.87	23.15	23.78	22.67	23.95	23.23	24.50	25.13
	3H	23.49	24.59	24.06	25.18	25.83	25.60	26.70	26.18	27.30	27.95
	4H	24.41	25.42	25.00	26.02	26.70	27.12	28.13	27.71	28.73	29.41
	6H	25.16	26.05	25.77	26.68	27.37	28.72	29.61	29.33	30.24	30.93
	8H	25.44	26.28	26.05	26.91	27.61	29.56	30.40	30.17	31.03	31.73
	12H	25.66	26.43	26.30	27.08	27.79	30.52	31.28	31.15	31.94	32.65
8H	4H	25.34	26.18	25.95	26.81	27.51	27.53	28.37	28.14	29.00	29.70
	6H	26.40	27.11	27.04	27.78	28.49	29.38	30.10	30.03	30.77	31.48
	8H	26.86	27.50	27.51	28.18	28.90	30.42	31.07	31.08	31.75	32.47
	12H	27.26	27.84	27.92	28.50	29.29	31.63	32.21	32.29	32.88	33.66
12H	4H	25.60	26.37	26.24	27.02	27.73	27.58	28.35	28.22	29.00	29.71
	6H	26.83	27.48	27.49	28.15	28.87	29.51	30.16	30.17	30.84	31.56
	8H	27.45	28.03	28.11	28.69	29.48	30.67	31.24	31.33	31.91	32.69