

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: P997544

Luminaire Tested: SA2XXDP-B1005DB2750-4F0-XX-W2A-D_3500K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997544
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_3500K
Description: Define 2 Direct Recessed with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

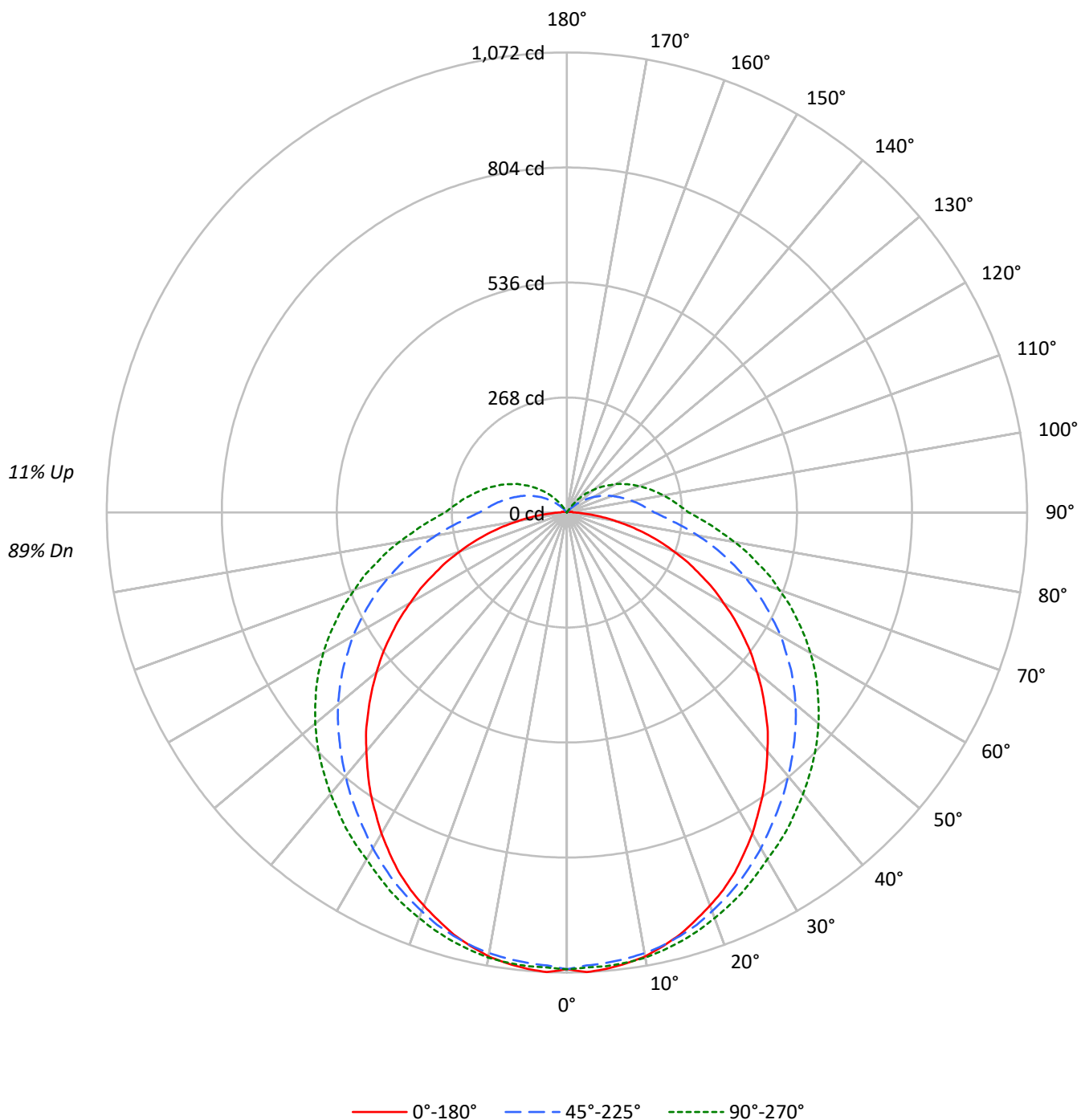
Lumens per Lamp: N/A
Luminaire Lumens: 4061.0 lumens
Efficiency: N/A
Efficacy: 66.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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°	16847	16847	16847
5°	16961	16740	16862
10°	16884	16760	16933
15°	16683	16733	16937
20°	16421	16655	16941
25°	16164	16596	16999
30°	15789	16522	17057
35°	15411	16483	17347
40°	15012	16574	17690
45°	14640	16781	18198
50°	14244	17132	18841
55°	13835	17580	19666
60°	13331	18213	20752
65°	12825	19065	22185
70°	12279	20415	24344
75°	11602	22923	28207
80°	10547	28259	36135
85°	10080	45387	61079

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 111953 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.9	2.5
10°-20°	289.4	7.1
20°-30°	438.5	10.8
30°-40°	533.9	13.1
40°-50°	574.5	14.1
50°-60°	557.9	13.7
60°-70°	487.2	12.0
70°-80°	375.0	9.2
80°-90°	251.1	6.2
90°-100°	173.3	4.3
100°-110°	126.5	3.1
110°-120°	83.5	2.1
120°-130°	46.5	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°	828.7	20.4
0°-40°	1362.6	33.6
0°-60°	2495.0	61.4
0°-90°	3608.3	88.9
90°-120°	383.3	9.4
90°-150°	452.7	11.1
90°-180°	453.0	11.2
0°-180°	4061.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1064	1064	1064	1064	1064	
5°	1067	1063	1054	1063	1061	101
15°	1018	1021	1021	1035	1034	287
25°	926	936	950	969	973	426
35°	798	824	853	887	898	498
45°	654	696	750	798	813	505
55°	501	557	637	693	713	448
65°	342	418	509	572	592	340
75°	190	276	375	441	461	201
85°	56	151	250	315	336	59
90°	15	105	204	265	284	11
95°	12	85	177	236	254	10
105°	8	52	133	187	204	9
115°	6	23	92	139	156	6
125°	3	3	52	94	108	3
135°	2	2	17	49	62	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°	1064.3	1064.3	1064.3	1064.3	1064.3
2.5°	1072.0	1067.4	1056.6	1064.3	1061.2
5°	1067.4	1062.8	1053.5	1062.8	1061.2
7.5°	1059.7	1056.6	1048.9	1059.7	1058.1
10°	1050.4	1047.3	1042.7	1055.0	1053.5
12.5°	1035.0	1036.5	1033.5	1045.8	1044.2
15°	1018.0	1021.1	1021.1	1035.0	1033.5
17.5°	996.4	1002.6	1007.2	1021.1	1021.1
20°	974.8	982.6	988.7	1005.7	1005.7
22.5°	951.7	961.0	970.2	987.2	990.3
25°	925.5	936.3	950.2	968.7	973.3
27.5°	894.6	911.6	927.0	950.2	953.2
30°	863.8	883.8	903.9	928.6	933.2
32.5°	829.8	853.0	877.7	907.0	916.2
35°	797.5	823.7	853.0	886.9	897.7
37.5°	762.0	791.3	828.3	865.3	876.1
40°	726.5	760.4	802.1	842.2	856.1
42.5°	692.6	726.5	775.9	820.6	834.5
45°	654.0	695.7	749.6	797.5	812.9
47.5°	617.0	661.7	723.4	772.8	789.7
50°	578.4	626.2	695.7	748.1	765.1
52.5°	541.4	592.3	666.3	720.3	738.8
55°	501.3	556.8	637.0	692.6	712.6
57.5°	462.7	524.4	604.6	664.8	684.9
60°	421.1	487.4	575.3	634.0	655.5
62.5°	384.1	453.5	541.4	604.6	624.7
65°	342.4	418.0	509.0	572.3	592.3
67.5°	305.4	384.1	476.6	539.9	561.5
70°	265.3	345.5	441.1	507.5	526.0
72.5°	228.3	311.6	408.8	473.5	496.7
75°	189.7	276.1	374.8	441.1	461.2
77.5°	152.7	242.2	342.4	408.8	430.3
80°	115.7	209.8	310.0	374.8	396.4
82.5°	84.8	177.4	279.2	344.0	364.0
85°	55.5	151.2	249.9	314.7	336.3
87.5°	33.9	126.5	225.2	288.4	308.5
90°	15.4	104.9	203.6	265.3	283.8
92.5°	13.9	95.6	189.7	249.9	268.4
95°	12.3	84.8	177.4	236.0	254.5
97.5°	10.8	77.1	166.6	223.7	242.2
100°	10.8	67.9	154.2	211.3	228.3
102.5°	9.3	60.2	143.4	199.0	215.9
105°	7.7	52.4	132.7	186.6	203.6
107.5°	7.7	44.7	121.9	174.3	191.3
110°	6.2	37.0	112.6	162.0	178.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	6.2	30.8	101.8	151.2	168.1
115°	6.2	23.1	92.5	138.8	155.8
117.5°	4.6	17.0	81.8	128.0	143.4
120°	4.6	10.8	72.5	115.7	132.7
122.5°	4.6	6.2	63.2	104.9	118.8
125°	3.1	3.1	52.4	94.1	108.0
127.5°	3.1	1.5	43.2	81.8	95.6
130°	3.1	1.5	33.9	71.0	83.3
132.5°	3.1	1.5	24.7	60.2	72.5
135°	1.5	1.5	17.0	49.4	61.7
137.5°	1.5	1.5	9.3	38.6	49.4
140°	1.5	0.0	3.1	27.8	37.0
142.5°	1.5	0.0	0.0	18.5	26.2
145°	0.0	0.0	0.0	9.3	17.0
147.5°	0.0	0.0	0.0	1.5	6.2
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	20.20	21.68	20.73	22.21	22.79	22.05	23.53	22.58	24.06	24.64
	3H	22.08	23.44	22.62	23.97	24.59	24.71	26.07	25.25	26.60	27.22
	4H	22.81	24.10	23.37	24.65	25.28	26.02	27.30	26.58	27.86	28.49
	6H	23.37	24.57	23.94	25.14	25.78	27.39	28.59	27.97	29.16	29.80
	8H	23.57	24.72	24.15	25.31	25.96	28.11	29.26	28.70	29.85	30.50
	12H	23.72	24.82	24.31	25.40	26.08	28.93	30.03	29.52	30.62	31.30
4H	2H	21.33	22.61	21.88	23.16	23.79	22.68	23.97	23.24	24.52	25.15
	3H	23.50	24.61	24.08	25.20	25.85	25.62	26.72	26.19	27.31	27.96
	4H	24.42	25.43	25.01	26.03	26.71	27.14	28.15	27.73	28.75	29.43
	6H	25.17	26.07	25.78	26.69	27.39	28.73	29.63	29.34	30.26	30.95
	8H	25.45	26.30	26.07	26.92	27.63	29.57	30.42	30.19	31.04	31.75
	12H	25.68	26.45	26.31	27.10	27.81	30.53	31.30	31.17	31.95	32.66
8H	4H	25.35	26.19	25.97	26.82	27.53	27.54	28.39	28.16	29.01	29.72
	6H	26.41	27.13	27.06	27.80	28.51	29.40	30.12	30.04	30.78	31.49
	8H	26.87	27.52	27.53	28.19	28.92	30.44	31.09	31.10	31.76	32.48
	12H	27.28	27.85	27.94	28.52	29.30	31.65	32.23	32.31	32.89	33.68
12H	4H	25.62	26.39	26.25	27.04	27.75	27.60	28.37	28.23	29.02	29.73
	6H	26.84	27.49	27.50	28.17	28.89	29.53	30.18	30.19	30.85	31.57
	8H	27.46	28.04	28.12	28.71	29.49	30.68	31.26	31.34	31.92	32.71