

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: P997840

Luminaire Tested: SA2XXDIP-B1005D1080UB50-4F0-XX-W2A-F4

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P997840
REPORT IS A COMBINATION OF REPORTS P983577 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B1005D1080UB50-4F0-XX-W2A-F4
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

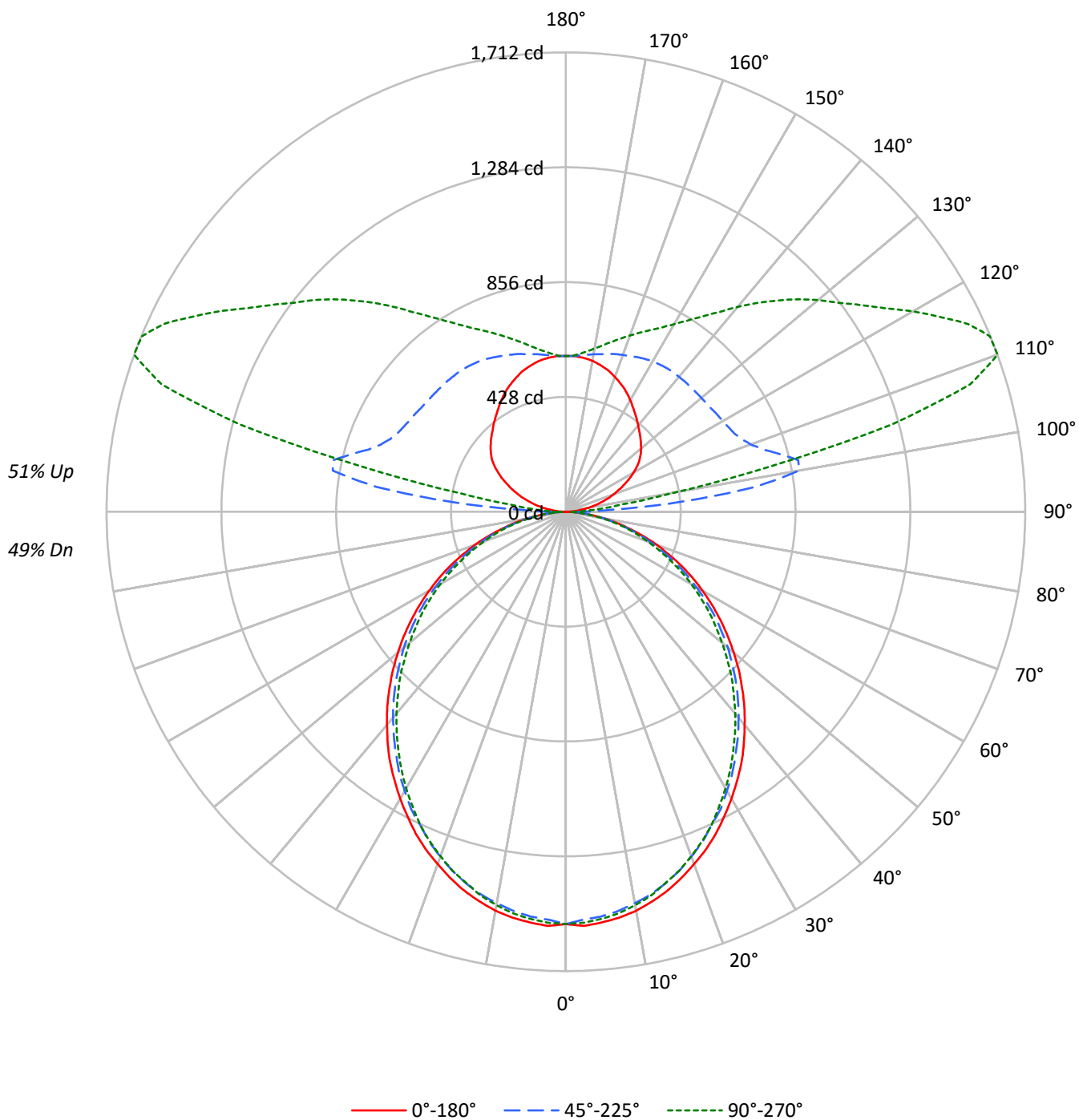
Lumens per Lamp: N/A
Luminaire Lumens: 7958.6 lumens
Efficiency: N/A
Efficacy: 82.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 96.3
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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	55	55	55
1	98	93	89	86	90	86	83	80	73	70	68	60	59	57	49	48	47
2	89	81	75	70	82	75	70	65	64	60	56	53	50	48	43	41	39
3	81	72	64	58	74	66	60	55	56	51	47	47	43	40	38	36	34
4	74	63	55	49	68	59	52	46	50	45	40	42	38	35	34	31	29
5	68	56	48	42	62	52	45	40	45	39	35	37	33	30	31	28	25
6	63	51	43	37	58	47	40	35	40	35	30	34	30	26	28	25	22
7	58	46	38	32	53	43	35	30	36	31	27	31	26	23	25	22	20
8	54	41	34	28	49	39	32	27	33	28	24	28	24	21	23	20	18
9	50	38	30	25	46	35	29	24	30	25	21	26	22	19	22	18	16
10	47	35	28	23	43	32	26	22	28	23	19	24	20	17	20	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	24315	24315	24315
5°	24355	23176	23013
10°	24156	22120	21681
15°	23803	21057	20282
20°	23324	19899	18956
25°	22848	18690	17633
30°	22249	17554	16243
35°	21683	16355	14879
40°	20984	15172	13589
45°	20289	13999	12325
50°	19533	12805	11011
55°	18732	11530	9770
60°	17837	10148	8477
65°	16854	8743	7118
70°	15608	7206	5748
75°	13879	5555	4439
80°	11792	3776	2857
85°	8560	1756	1216

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 20289 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.6	1.8
10°-20°	406.8	5.1
20°-30°	597.8	7.5
30°-40°	694.3	8.7
40°-50°	693.4	8.7
50°-60°	604.6	7.6
60°-70°	446.9	5.6
70°-80°	252.9	3.2
80°-90°	70.4	0.9
90°-100°	235.3	3.0
100°-110°	795.5	10.0
110°-120°	836.1	10.5
120°-130°	687.6	8.6
130°-140°	552.5	6.9
140°-150°	417.4	5.2
150°-160°	293.4	3.7
160°-170°	172.8	2.2
170°-180°	56.2	0.7
0°-30°	1149.1	14.4
0°-40°	1843.4	23.2
0°-60°	3141.4	39.5
0°-90°	3911.7	49.2
90°-120°	1866.9	23.5
90°-150°	3524.5	44.3
90°-180°	4047.0	50.9
0°-180°	7958.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1536	1536	1536	1536	1536	
5°	1536	1530	1514	1526	1523	146
15°	1462	1453	1434	1440	1433	412
25°	1323	1312	1286	1289	1286	609
35°	1142	1127	1103	1094	1087	713
45°	929	919	896	880	874	717
55°	703	694	676	659	651	629
65°	474	465	450	437	430	469
75°	248	245	238	229	232	265
85°	61	59	58	53	52	67
90°	1	15	38	36	37	6
95°	39	96	438	165	127	40
105°	136	205	827	1478	1258	145
115°	240	303	692	1428	1655	238
125°	335	396	665	1157	1343	298
135°	393	469	658	972	1113	304
145°	449	516	654	812	888	282
155°	510	551	635	718	747	235
165°	556	573	608	645	655	157
175°	579	580	585	592	590	55
180°	580	580	580	580	580	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1536.1	1536.1	1536.1	1536.1	1536.1
2.5°	1544.9	1537.5	1521.3	1536.1	1533.1
5°	1536.1	1530.2	1513.9	1525.7	1522.8
7.5°	1525.7	1516.9	1500.6	1512.4	1509.5
10°	1509.5	1499.1	1481.4	1493.2	1488.8
12.5°	1487.3	1478.5	1460.7	1468.1	1465.2
15°	1462.2	1453.4	1434.2	1440.1	1432.7
17.5°	1431.2	1422.3	1403.1	1410.5	1403.1
20°	1397.2	1388.4	1367.7	1372.1	1366.2
22.5°	1363.3	1350.0	1330.8	1330.8	1327.8
25°	1323.4	1311.6	1286.5	1289.4	1286.5
27.5°	1279.1	1268.7	1249.5	1245.1	1237.7
30°	1234.8	1222.9	1200.8	1196.4	1190.5
32.5°	1187.5	1178.6	1155.0	1146.1	1140.2
35°	1141.7	1126.9	1103.3	1094.4	1087.1
37.5°	1090.0	1076.7	1053.1	1042.8	1035.4
40°	1036.8	1025.0	1001.4	988.1	982.2
42.5°	985.2	973.3	949.7	934.9	926.1
45°	929.0	918.7	896.5	880.3	874.4
47.5°	874.4	864.0	840.4	824.2	815.3
50°	816.8	809.4	788.7	768.0	760.6
52.5°	760.6	750.3	731.1	714.9	704.5
55°	703.0	694.2	676.5	658.7	651.4
57.5°	645.4	638.1	618.9	601.1	595.2
60°	587.8	581.9	561.3	545.0	540.6
62.5°	531.7	521.4	506.6	491.8	485.9
65°	474.1	465.3	450.5	437.2	429.8
67.5°	415.0	407.6	394.4	384.0	378.1
70°	360.4	354.5	341.2	330.8	324.9
72.5°	304.3	298.4	291.0	280.6	276.2
75°	248.1	245.2	237.8	228.9	231.9
77.5°	197.9	192.0	189.1	184.6	180.2
80°	147.7	146.2	143.3	138.8	135.9
82.5°	100.4	100.4	99.0	93.1	93.1
85°	60.6	59.1	57.6	53.2	51.7
87.5°	26.6	23.6	20.7	16.2	14.8
90°	1.1	15.0	38.0	36.2	36.8
92.5°	16.7	53.0	171.9	79.2	68.1
95°	39.1	96.0	437.6	165.2	127.3
97.5°	58.0	126.7	713.3	331.5	213.2
100°	86.0	155.2	881.8	660.2	399.6
102.5°	111.6	180.8	887.4	1116.2	779.1
105°	136.2	205.4	827.1	1478.5	1258.0
107.5°	163.0	230.0	771.3	1609.6	1580.6
110°	189.8	255.0	733.4	1588.4	1712.3

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	214.3	279.0	708.8	1516.4	1710.1
115°	240.0	303.0	692.1	1428.2	1655.4
117.5°	266.8	327.0	683.1	1344.0	1572.8
120°	291.3	350.5	675.3	1268.6	1493.5
122.5°	314.8	374.5	670.9	1210.1	1410.9
125°	334.9	396.2	665.3	1157.0	1342.8
127.5°	351.6	416.9	661.9	1111.8	1279.2
130°	366.1	435.4	659.7	1066.1	1226.8
132.5°	379.5	453.2	658.6	1018.6	1172.1
135°	392.9	468.8	657.5	972.2	1112.9
137.5°	405.2	482.2	657.5	925.4	1056.0
140°	419.7	494.5	656.4	884.0	996.8
142.5°	434.2	504.6	656.4	844.4	937.7
145°	448.7	515.7	654.1	812.1	888.5
147.5°	464.4	524.6	650.8	783.6	845.0
150°	480.0	533.6	647.4	759.0	807.0
152.5°	495.6	542.5	641.8	738.4	774.7
155°	510.1	550.8	635.1	718.3	746.8
157.5°	522.4	557.6	628.4	699.3	722.2
160°	534.7	564.2	621.8	680.3	698.8
162.5°	547.0	569.3	616.2	662.5	676.4
165°	555.9	572.6	608.4	645.2	655.2
167.5°	563.7	576.0	601.7	629.6	635.1
170°	571.5	577.6	596.1	615.0	617.3
172.5°	576.0	579.4	589.4	602.2	602.8
175°	579.3	579.9	584.9	592.2	590.5
177.5°	581.6	580.5	580.5	584.9	581.6
180°	580.5	580.5	580.5	580.5	580.5

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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	16.24	17.10	17.21	18.08	19.36	17.02	17.88	17.99	18.86	20.14
	3H	17.58	18.35	18.56	19.33	20.64	18.65	19.42	19.63	20.40	21.71
	4H	17.98	18.71	18.97	19.70	21.01	19.24	19.97	20.23	20.96	22.27
	6H	18.20	18.87	19.20	19.87	21.19	19.64	20.31	20.64	21.31	22.64
	8H	18.23	18.87	19.24	19.88	21.21	19.75	20.39	20.76	21.40	22.73
	12H	18.22	18.83	19.24	19.84	21.18	19.80	20.40	20.81	21.41	22.76
4H	2H	16.71	17.44	17.71	18.43	19.74	17.35	18.08	18.35	19.07	20.38
	3H	18.23	18.83	19.23	19.85	21.18	19.13	19.74	20.14	20.76	22.09
	4H	18.73	19.29	19.75	20.30	21.65	19.81	20.37	20.83	21.38	22.73
	6H	19.04	19.51	20.06	20.55	21.90	20.31	20.79	21.33	21.82	23.17
	8H	19.09	19.54	20.12	20.57	21.93	20.45	20.90	21.48	21.93	23.29
	12H	19.09	19.49	20.13	20.54	21.91	20.51	20.92	21.56	21.96	23.33
8H	4H	18.91	19.35	19.93	20.38	21.75	19.90	20.34	20.92	21.37	22.74
	6H	19.29	19.66	20.34	20.73	22.09	20.47	20.84	21.52	21.91	23.27
	8H	19.39	19.72	20.45	20.77	22.15	20.66	20.98	21.71	22.04	23.42
	12H	19.42	19.71	20.49	20.76	22.18	20.76	21.04	21.82	22.09	23.51
12H	4H	18.89	19.29	19.93	20.34	21.71	19.86	20.27	20.91	21.31	22.68
	6H	19.31	19.63	20.37	20.69	22.07	20.46	20.78	21.52	21.84	23.22
	8H	19.42	19.71	20.48	20.76	22.18	20.66	20.94	21.72	21.99	23.41