

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: P997838

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

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P997838
REPORT IS A COMBINATION OF REPORTS P983575 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-F
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

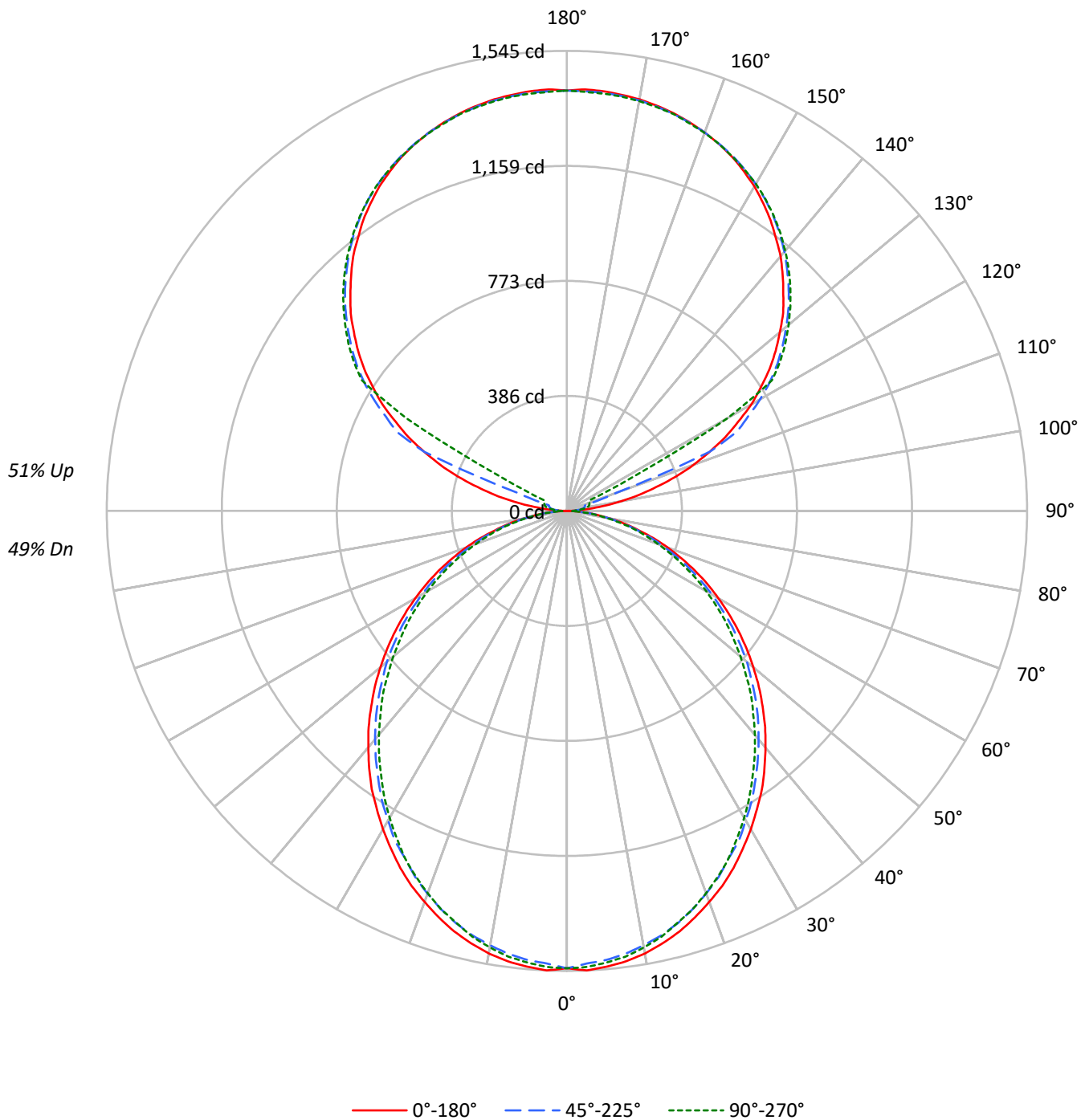
Lumens per Lamp: N/A
Luminaire Lumens: 8049.0 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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	98	98	98	98	83	83	83	68	68	68	55	55	55
1	97	93	89	86	90	86	83	80	72	70	68	60	58	57	48	47	46
2	89	81	75	70	81	75	70	65	63	60	56	53	50	47	43	41	39
3	81	72	64	58	74	66	60	55	56	51	47	47	43	40	38	35	33
4	74	63	55	49	68	59	52	46	50	44	40	41	38	34	34	31	29
5	68	56	48	42	62	52	45	40	44	39	35	37	33	30	30	27	25
6	63	51	42	37	57	47	40	34	40	34	30	34	29	26	28	24	22
7	58	46	38	32	53	42	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	18	21	18	16
10	47	35	27	23	43	32	26	21	28	23	19	24	20	17	20	17	14

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	7.4
30°-40°	694.3	8.6
40°-50°	693.4	8.6
50°-60°	604.6	7.5
60°-70°	446.9	5.6
70°-80°	252.9	3.1
80°-90°	69.2	0.9
90°-100°	46.6	0.6
100°-110°	173.5	2.2
110°-120°	460.2	5.7
120°-130°	763.3	9.5
130°-140°	810.8	10.1
140°-150°	753.6	9.4
150°-160°	605.8	7.5
160°-170°	390.4	4.9
170°-180°	134.4	1.7
0°-30°	1149.1	14.3
0°-40°	1843.4	22.9
0°-60°	3141.4	39.0
0°-90°	3910.5	48.6
90°-120°	680.3	8.5
90°-150°	3007.9	37.4
90°-180°	4139.0	51.4
0°-180°	8049.0	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	12	20	26	28	7
95°	66	33	40	45	44	79
105°	310	341	62	74	78	332
115°	587	605	630	157	84	578
125°	830	844	863	870	873	741
135°	1028	1044	1053	1063	1061	794
145°	1192	1191	1208	1216	1210	746
155°	1313	1303	1316	1322	1314	605
165°	1383	1377	1380	1387	1380	391
175°	1415	1408	1410	1417	1407	135
180°	1412	1412	1412	1412	1412	

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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°	1.0	12.3	20.4	25.5	27.6
92.5°	25.5	21.5	24.5	26.6	27.6
95°	66.4	32.7	39.8	44.9	43.9
97.5°	119.5	35.8	52.1	55.2	56.2
100°	180.8	40.9	58.2	66.4	68.4
102.5°	248.2	246.2	60.3	71.5	74.6
105°	310.5	341.2	62.3	73.5	77.6
107.5°	383.1	408.6	64.4	75.6	79.7
110°	452.5	474.0	178.8	76.6	80.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	517.9	536.3	518.9	78.7	81.7
115°	587.3	604.7	630.2	157.3	83.8
117.5°	647.6	668.0	685.4	539.3	271.7
120°	715.0	730.3	748.7	761.0	623.1
122.5°	772.2	788.6	809.0	815.1	816.2
125°	830.5	843.7	863.1	870.3	873.4
127.5°	883.6	897.9	913.2	923.4	924.4
130°	933.6	950.0	961.2	972.4	971.4
132.5°	984.7	998.0	1009.2	1018.4	1017.4
135°	1027.6	1043.9	1053.1	1063.3	1061.3
137.5°	1072.5	1084.8	1095.0	1105.2	1102.2
140°	1116.5	1124.6	1135.9	1145.1	1140.0
142.5°	1153.2	1160.4	1173.7	1181.8	1176.7
145°	1192.1	1191.0	1208.4	1215.5	1210.4
147.5°	1225.8	1222.7	1240.1	1245.2	1241.1
150°	1258.4	1251.3	1267.6	1273.8	1268.7
152.5°	1286.0	1277.9	1293.2	1299.3	1292.2
155°	1312.6	1303.4	1315.7	1321.8	1313.6
157.5°	1334.0	1325.9	1335.1	1342.2	1334.0
160°	1352.4	1346.3	1352.4	1358.6	1351.4
162.5°	1368.8	1362.6	1367.7	1374.9	1365.7
165°	1383.1	1376.9	1380.0	1387.2	1380.0
167.5°	1394.3	1388.2	1391.2	1398.4	1389.2
170°	1403.5	1397.4	1399.4	1406.6	1397.4
172.5°	1409.6	1403.5	1405.5	1412.7	1403.5
175°	1414.7	1407.6	1409.6	1416.8	1406.6
177.5°	1416.8	1409.6	1410.6	1417.8	1408.6
180°	1411.7	1411.7	1411.7	1411.7	1411.7

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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	16.19	17.04	17.16	18.02	19.31	16.97	17.82	17.94	18.80	20.10
	3H	17.53	18.29	18.51	19.28	20.59	18.60	19.36	19.58	20.35	21.66
	4H	17.93	18.65	18.93	19.65	20.97	19.19	19.91	20.18	20.91	22.23
	6H	18.15	18.81	19.15	19.81	21.15	19.59	20.26	20.60	21.26	22.59
	8H	18.18	18.81	19.19	19.83	21.16	19.70	20.33	20.71	21.35	22.68
	12H	18.17	18.77	19.19	19.78	21.14	19.74	20.35	20.76	21.36	22.71
4H	2H	16.66	17.38	17.66	18.37	19.70	17.30	18.02	18.30	19.02	20.34
	3H	18.17	18.78	19.18	19.80	21.14	19.08	19.68	20.09	20.71	22.04
	4H	18.68	19.23	19.70	20.25	21.61	19.76	20.31	20.78	21.33	22.69
	6H	18.98	19.46	20.01	20.50	21.85	20.26	20.73	21.28	21.77	23.13
	8H	19.04	19.48	20.07	20.51	21.88	20.40	20.84	21.43	21.88	23.25
	12H	19.04	19.44	20.09	20.49	21.86	20.46	20.86	21.51	21.91	23.28
8H	4H	18.85	19.30	19.88	20.33	21.70	19.85	20.29	20.87	21.32	22.69
	6H	19.24	19.60	20.29	20.68	22.05	20.41	20.78	21.47	21.86	23.22
	8H	19.34	19.66	20.40	20.72	22.11	20.60	20.92	21.66	21.99	23.37
	12H	19.37	19.65	20.43	20.71	22.14	20.70	20.98	21.77	22.04	23.47
12H	4H	18.84	19.24	19.88	20.28	21.66	19.81	20.21	20.86	21.26	22.63
	6H	19.25	19.58	20.32	20.64	22.02	20.41	20.73	21.47	21.79	23.18
	8H	19.37	19.65	20.43	20.71	22.13	20.60	20.88	21.67	21.94	23.37