

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: P998978

Luminaire Tested: SA2XXDIP-B865D1080UB27-4F0-XX-W2A-F

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998978
REPORT IS A COMBINATION OF REPORTS P984724 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B865D1080UB27-4F0-XX-W2A-F
Description: Define 2 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

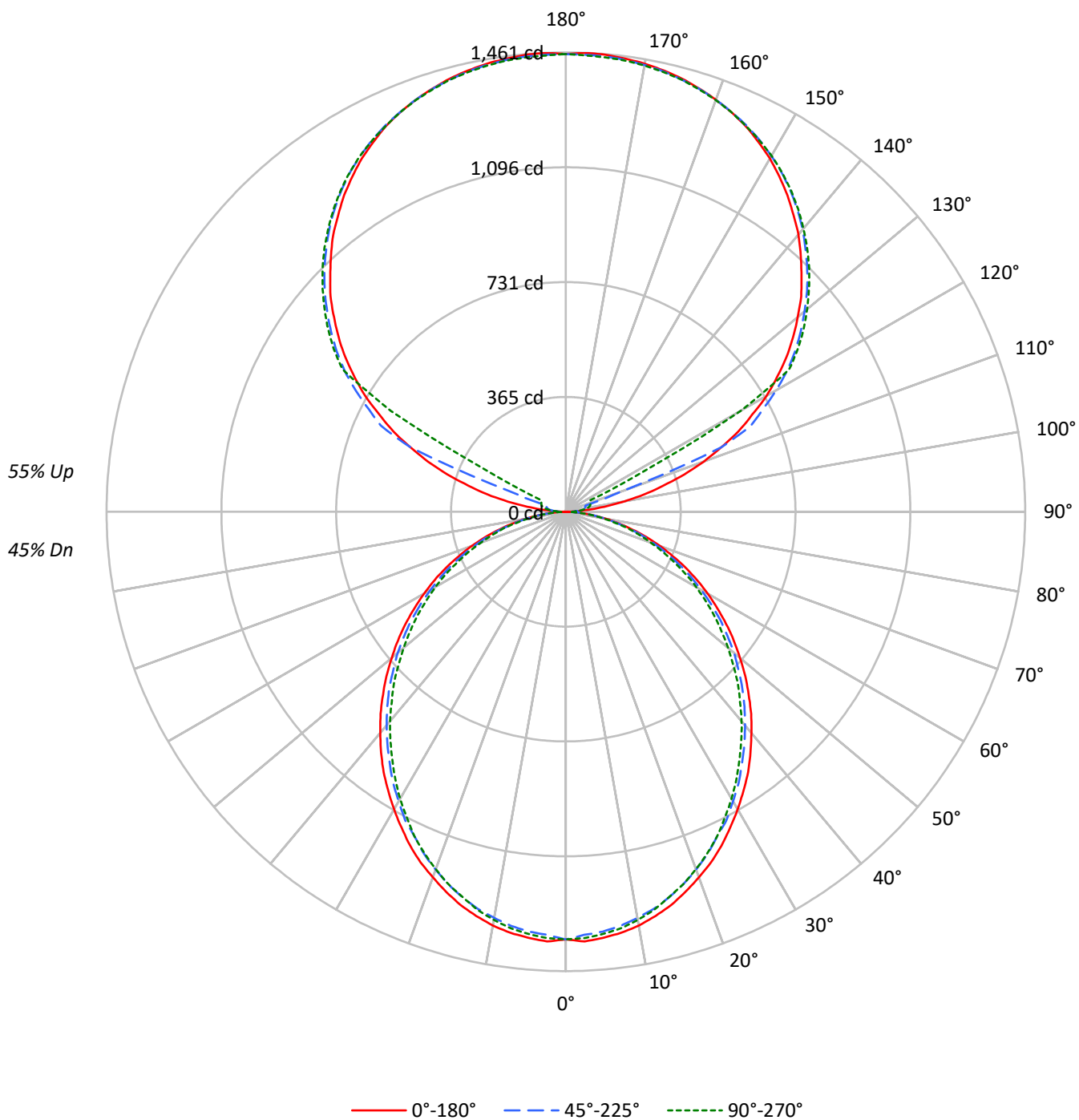
Lumens per Lamp: N/A
Luminaire Lumens: 7730.0 lumens
Efficiency: N/A
Efficacy: 94.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 81.8
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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51
1	97	92	88	85	88	85	81	78	70	68	66	57	56	54	45	44	43
2	88	81	75	69	80	74	69	64	62	58	55	50	48	45	40	38	37
3	80	71	64	58	73	65	59	54	54	50	46	45	41	38	35	33	31
4	73	63	55	49	67	58	51	46	48	43	39	40	36	33	32	29	27
5	67	56	48	42	61	51	44	39	43	38	34	36	32	28	28	26	23
6	62	50	42	36	57	46	39	34	39	33	29	32	28	25	26	23	21
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	24	21	18
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	16
9	49	37	30	25	45	35	28	23	29	24	21	25	21	18	20	17	15
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	19	16	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21528	21528	21528
5°	21563	20520	20374
10°	21386	19585	19195
15°	21074	18642	17956
20°	20651	17617	16783
25°	20229	16547	15611
30°	19697	15541	14381
35°	19197	14479	13172
40°	18579	13433	12031
45°	17963	12395	10911
50°	17292	11337	9750
55°	16587	10207	8649
60°	15794	8984	7505
65°	14924	7740	6302
70°	13819	6380	5090
75°	12290	4917	3930
80°	10443	3341	2529
85°	7571	1555	1077

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 17963 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.0	1.7
10°-20°	360.1	4.7
20°-30°	529.2	6.8
30°-40°	614.7	8.0
40°-50°	613.9	7.9
50°-60°	535.3	6.9
60°-70°	395.7	5.1
70°-80°	223.9	2.9
80°-90°	61.6	0.8
90°-100°	48.0	0.6
100°-110°	178.9	2.3
110°-120°	474.6	6.1
120°-130°	787.1	10.2
130°-140°	836.1	10.8
140°-150°	777.0	10.1
150°-160°	624.7	8.1
160°-170°	402.5	5.2
170°-180°	138.5	1.8
0°-30°	1017.4	13.2
0°-40°	1632.1	21.1
0°-60°	2781.3	36.0
0°-90°	3462.6	44.8
90°-120°	701.5	9.1
90°-150°	3101.6	40.1
90°-180°	4267.0	55.2
0°-180°	7730.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1360	1360	1360	1360	1360	
5°	1360	1355	1340	1351	1348	129
15°	1295	1287	1270	1275	1268	365
25°	1172	1161	1139	1142	1139	539
35°	1011	998	977	969	962	631
45°	822	813	794	779	774	635
55°	622	615	599	583	577	557
65°	420	412	399	387	380	415
75°	220	217	210	203	205	234
85°	54	52	51	47	46	60
90°	1	13	21	26	28	7
95°	68	34	41	46	45	81
105°	320	352	64	76	80	342
115°	606	624	650	162	86	596
125°	856	870	890	897	901	764
135°	1060	1076	1086	1096	1094	819
145°	1229	1228	1246	1253	1248	769
155°	1354	1344	1357	1363	1354	624
165°	1426	1420	1423	1430	1423	403
175°	1459	1451	1454	1461	1450	139
180°	1456	1456	1456	1456	1456	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1360.0	1360.0	1360.0	1360.0	1360.0
2.5°	1367.8	1361.3	1346.9	1360.0	1357.4
5°	1360.0	1354.7	1340.4	1350.8	1348.2
7.5°	1350.8	1343.0	1328.6	1339.1	1336.4
10°	1336.4	1327.3	1311.6	1322.1	1318.1
12.5°	1316.8	1309.0	1293.3	1299.8	1297.2
15°	1294.6	1286.7	1269.7	1275.0	1268.4
17.5°	1267.1	1259.3	1242.3	1248.8	1242.3
20°	1237.1	1229.2	1210.9	1214.8	1209.6
22.5°	1207.0	1195.2	1178.2	1178.2	1175.6
25°	1171.7	1161.2	1139.0	1141.6	1139.0
27.5°	1132.4	1123.3	1106.3	1102.4	1095.8
30°	1093.2	1082.8	1063.1	1059.2	1054.0
32.5°	1051.4	1043.5	1022.6	1014.8	1009.5
35°	1010.8	997.8	976.8	969.0	962.4
37.5°	965.1	953.3	932.4	923.2	916.7
40°	918.0	907.5	886.6	874.8	869.6
42.5°	872.2	861.8	840.8	827.8	819.9
45°	822.5	813.4	793.8	779.4	774.1
47.5°	774.1	765.0	744.1	729.7	721.8
50°	723.1	716.6	698.3	680.0	673.5
52.5°	673.5	664.3	647.3	632.9	623.8
55°	622.5	614.6	598.9	583.2	576.7
57.5°	571.5	564.9	547.9	532.2	527.0
60°	520.5	515.2	496.9	482.5	478.6
62.5°	470.8	461.6	448.5	435.5	430.2
65°	419.8	411.9	398.8	387.1	380.5
67.5°	367.5	360.9	349.1	340.0	334.8
70°	319.1	313.8	302.1	292.9	287.7
72.5°	269.4	264.1	257.6	248.5	244.5
75°	219.7	217.1	210.5	202.7	205.3
77.5°	175.2	170.0	167.4	163.5	159.5
80°	130.8	129.5	126.8	122.9	120.3
82.5°	88.9	88.9	87.6	82.4	82.4
85°	53.6	52.3	51.0	47.1	45.8
87.5°	23.5	20.9	18.3	14.4	13.1
90°	1.1	12.6	21.1	26.3	28.4
92.5°	26.3	22.1	25.3	27.4	28.4
95°	68.5	33.7	41.1	46.3	45.3
97.5°	123.2	36.9	53.7	56.9	57.9
100°	186.4	42.1	60.0	68.5	70.6
102.5°	255.9	253.8	62.1	73.7	76.9
105°	320.2	351.8	64.3	75.8	80.0
107.5°	395.0	421.3	66.4	77.9	82.2
110°	466.6	488.7	184.3	79.0	83.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	534.0	553.0	535.1	81.1	84.3
115°	605.6	623.5	649.9	162.2	86.4
117.5°	667.8	688.9	706.8	556.1	280.2
120°	737.3	753.1	772.1	784.7	642.5
122.5°	796.3	813.1	834.2	840.5	841.6
125°	856.3	870.0	890.0	897.4	900.6
127.5°	911.1	925.8	941.6	952.2	953.2
130°	962.7	979.6	991.1	1002.7	1001.7
132.5°	1015.4	1029.1	1040.6	1050.1	1049.1
135°	1059.6	1076.5	1085.9	1096.5	1094.4
137.5°	1106.0	1118.6	1129.1	1139.7	1136.5
140°	1151.2	1159.7	1171.3	1180.7	1175.5
142.5°	1189.2	1196.5	1210.2	1218.7	1213.4
145°	1229.2	1228.1	1246.0	1253.4	1248.1
147.5°	1263.9	1260.8	1278.7	1284.0	1279.7
150°	1297.7	1290.3	1307.1	1313.5	1308.2
152.5°	1326.1	1317.7	1333.5	1339.8	1332.4
155°	1353.5	1344.0	1356.6	1363.0	1354.5
157.5°	1375.6	1367.2	1376.6	1384.0	1375.6
160°	1394.6	1388.2	1394.6	1400.9	1393.5
162.5°	1411.4	1405.1	1410.4	1417.7	1408.2
165°	1426.2	1419.8	1423.0	1430.4	1423.0
167.5°	1437.7	1431.4	1434.6	1442.0	1432.5
170°	1447.2	1440.9	1443.0	1450.4	1440.9
172.5°	1453.5	1447.2	1449.3	1456.7	1447.2
175°	1458.8	1451.4	1453.5	1460.9	1450.4
177.5°	1460.9	1453.5	1454.6	1462.0	1452.5
180°	1455.6	1455.6	1455.6	1455.6	1455.6

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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	15.40	16.22	16.40	17.23	18.57	16.18	17.00	17.18	18.01	19.35
	3H	16.73	17.46	17.74	18.49	19.85	17.80	18.54	18.81	19.56	20.92
	4H	17.14	17.83	18.16	18.85	20.22	18.39	19.09	19.42	20.11	21.48
	6H	17.35	17.99	18.39	19.02	20.40	18.79	19.43	19.83	20.46	21.85
	8H	17.38	17.99	18.42	19.03	20.41	18.90	19.51	19.94	20.55	21.93
	12H	17.37	17.95	18.42	18.99	20.39	18.95	19.52	19.99	20.56	21.97
4H	2H	15.86	16.56	16.89	17.58	18.95	16.51	17.20	17.54	18.22	19.59
	3H	17.38	17.95	18.41	19.01	20.39	18.28	18.86	19.32	19.91	21.30
	4H	17.88	18.41	18.93	19.45	20.86	18.96	19.49	20.01	20.53	21.94
	6H	18.18	18.64	19.24	19.70	21.11	19.45	19.91	20.51	20.98	22.38
	8H	18.24	18.66	19.29	19.72	21.14	19.60	20.02	20.65	21.08	22.50
	12H	18.23	18.62	19.31	19.69	21.12	19.66	20.04	20.73	21.11	22.54
8H	4H	18.05	18.48	19.11	19.54	20.95	19.04	19.47	20.10	20.53	21.95
	6H	18.43	18.79	19.51	19.89	21.30	19.61	19.96	20.69	21.06	22.48
	8H	18.54	18.84	19.62	19.93	21.36	19.80	20.11	20.89	21.19	22.63
	12H	18.56	18.84	19.66	19.92	21.39	19.90	20.17	20.99	21.25	22.72
12H	4H	18.03	18.42	19.11	19.49	20.91	19.01	19.39	20.08	20.46	21.89
	6H	18.45	18.76	19.54	19.84	21.28	19.60	19.91	20.69	21.00	22.43
	8H	18.56	18.83	19.65	19.91	21.39	19.80	20.07	20.89	21.15	22.62