

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: P998400

Luminaire Tested: SA2XXDIP-B485D1080UB2750-4F0-XX-W2A-F_4000K

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998400
REPORT IS A COMBINATION OF REPORTS P984140 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B485D1080UB2750-4F0-XX-W2A-F_4000K
Description: Define 2 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

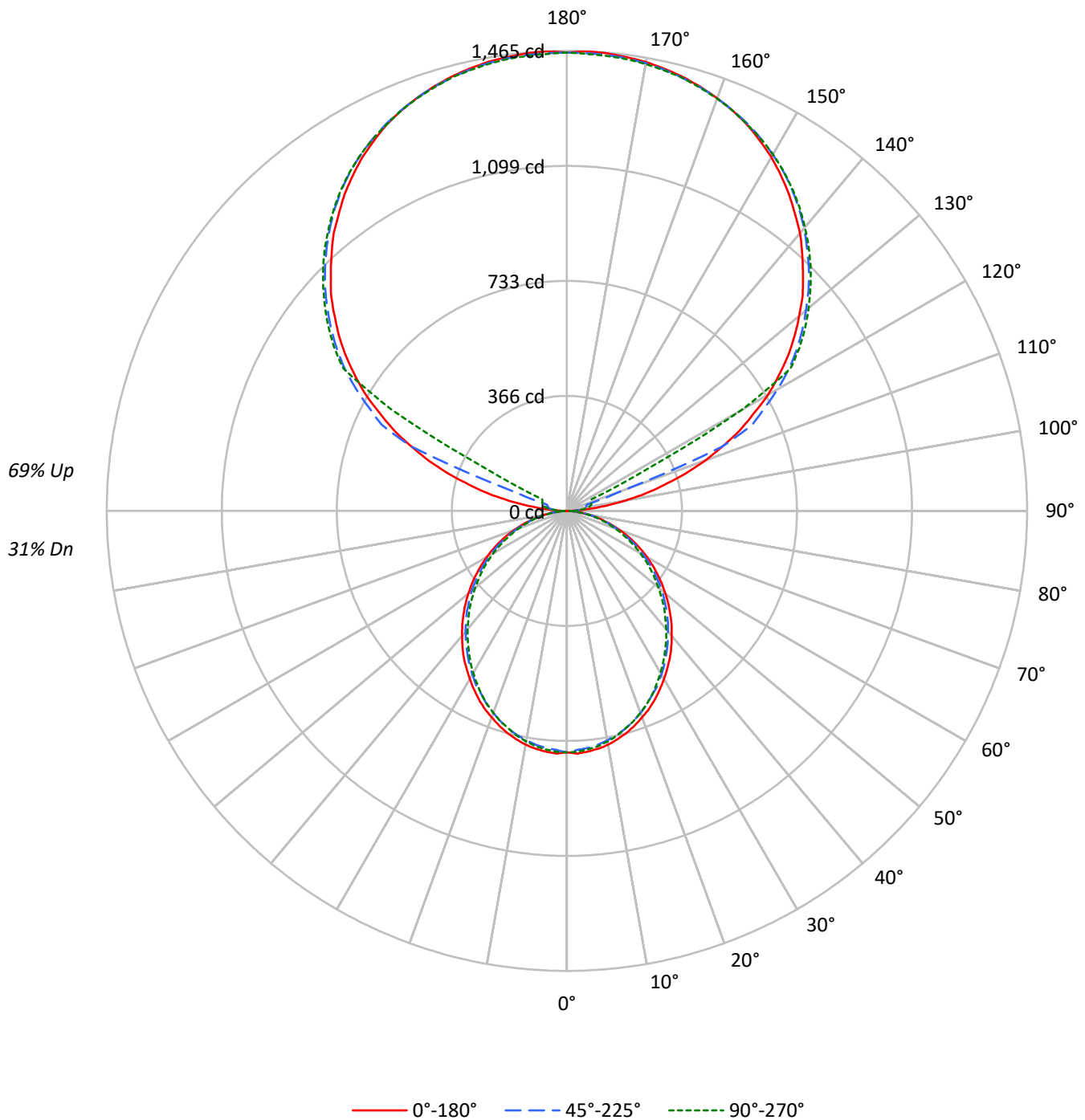
Lumens per Lamp: N/A
Luminaire Lumens: 6239.0 lumens
Efficiency: N/A
Efficacy: 105.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 59
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	103	103	103	103	92	92	92	92	73	73	73	55	55	55	39	39	39
1	94	89	86	82	84	81	77	74	64	62	60	49	47	46	34	34	33
2	85	78	72	67	76	70	65	61	56	52	49	43	40	38	30	29	28
3	78	69	61	56	70	62	56	51	49	45	42	38	35	32	27	25	24
4	71	61	53	47	64	55	48	43	44	39	35	34	30	28	24	22	20
5	65	54	46	40	58	49	42	37	39	34	30	30	27	24	22	19	18
6	60	48	40	35	54	44	37	32	35	30	26	27	24	21	20	17	16
7	55	43	36	30	50	39	33	28	32	27	23	25	21	18	18	16	14
8	51	39	32	27	46	36	29	25	29	24	20	22	19	16	16	14	12
9	48	36	28	24	43	32	26	22	26	22	18	21	17	15	15	13	11
10	44	33	26	21	40	30	24	19	24	19	16	19	16	13	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12176	12176	12176
5°	12196	11606	11524
10°	12097	11076	10857
15°	11919	10544	10156
20°	11680	9965	9493
25°	11441	9359	8829
30°	11141	8790	8133
35°	10857	8190	7451
40°	10508	7598	6805
45°	10160	7011	6172
50°	9781	6413	5514
55°	9382	5772	4892
60°	8933	5082	4245
65°	8439	4378	3564
70°	7817	3609	2878
75°	6953	2782	2222
80°	5908	1889	1430
85°	4280	878	609

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 10160 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.4	1.2
10°-20°	203.7	3.3
20°-30°	299.3	4.8
30°-40°	347.7	5.6
40°-50°	347.2	5.6
50°-60°	302.8	4.9
60°-70°	223.8	3.6
70°-80°	126.6	2.0
80°-90°	36.0	0.6
90°-100°	48.1	0.8
100°-110°	179.4	2.9
110°-120°	475.9	7.6
120°-130°	789.3	12.7
130°-140°	838.4	13.4
140°-150°	779.2	12.5
150°-160°	626.5	10.0
160°-170°	403.7	6.5
170°-180°	138.9	2.2
0°-30°	575.4	9.2
0°-40°	923.1	14.8
0°-60°	1573.1	25.2
0°-90°	1959.6	31.4
90°-120°	703.5	11.3
90°-150°	3110.3	49.9
90°-180°	4279.0	68.6
0°-180°	6239.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	769	769	769	769	769	
5°	769	766	758	764	763	73
15°	732	728	718	721	717	206
25°	663	657	644	646	644	305
35°	572	564	552	548	544	357
45°	465	460	449	441	438	359
55°	352	348	339	330	326	315
65°	237	233	226	219	215	235
75°	124	123	119	115	116	133
85°	30	30	29	27	26	34
90°	1	13	21	26	28	6
95°	69	34	41	46	45	81
105°	321	353	64	76	80	343
115°	607	625	652	163	87	598
125°	859	872	892	900	903	766
135°	1063	1080	1089	1100	1097	821
145°	1233	1232	1250	1257	1252	771
155°	1357	1348	1360	1367	1358	625
165°	1430	1424	1427	1434	1427	404
175°	1463	1456	1458	1465	1454	139
180°	1460	1460	1460	1460	1460	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	769.2	769.2	769.2	769.2	769.2
2.5°	773.7	770.0	761.8	769.2	767.7
5°	769.2	766.3	758.1	764.0	762.6
7.5°	764.0	759.6	751.5	757.4	755.9
10°	755.9	750.7	741.8	747.8	745.5
12.5°	744.8	740.4	731.5	735.2	733.7
15°	732.2	727.8	718.2	721.1	717.4
17.5°	716.7	712.3	702.6	706.3	702.6
20°	699.7	695.2	684.9	687.1	684.2
22.5°	682.7	676.0	666.4	666.4	664.9
25°	662.7	656.8	644.2	645.7	644.2
27.5°	640.5	635.3	625.7	623.5	619.8
30°	618.3	612.4	601.3	599.1	596.1
32.5°	594.7	590.2	578.4	574.0	571.0
35°	571.7	564.3	552.5	548.1	544.4
37.5°	545.8	539.2	527.4	522.2	518.5
40°	519.2	513.3	501.5	494.8	491.9
42.5°	493.3	487.4	475.6	468.2	463.7
45°	465.2	460.0	449.0	440.8	437.9
47.5°	437.9	432.7	420.8	412.7	408.3
50°	409.0	405.3	395.0	384.6	380.9
52.5°	380.9	375.7	366.1	358.0	352.8
55°	352.1	347.6	338.7	329.9	326.2
57.5°	323.2	319.5	309.9	301.0	298.1
60°	294.4	291.4	281.1	272.9	270.7
62.5°	266.3	261.1	253.7	246.3	243.3
65°	237.4	233.0	225.6	218.9	215.2
67.5°	207.8	204.1	197.5	192.3	189.3
70°	180.5	177.5	170.9	165.7	162.7
72.5°	152.4	149.4	145.7	140.5	138.3
75°	124.3	122.8	119.1	114.6	116.1
77.5°	99.1	96.2	94.7	92.5	90.2
80°	74.0	73.2	71.7	69.5	68.0
82.5°	50.3	50.3	49.6	46.6	46.6
85°	30.3	29.6	28.8	26.6	25.9
87.5°	13.3	11.8	10.4	8.1	7.4
90°	1.1	12.7	21.1	26.4	28.5
92.5°	26.4	22.2	25.3	27.5	28.5
95°	68.7	33.8	41.2	46.5	45.4
97.5°	123.6	37.0	53.9	57.0	58.1
100°	187.0	42.2	60.2	68.7	70.8
102.5°	256.7	254.6	62.3	73.9	77.1
105°	321.1	352.8	64.4	76.0	80.3
107.5°	396.1	422.5	66.5	78.2	82.4
110°	467.9	490.1	184.8	79.2	83.4

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	535.5	554.5	536.6	81.3	84.5
115°	607.3	625.3	651.7	162.7	86.6
117.5°	669.7	690.8	708.7	557.7	281.0
120°	739.4	755.2	774.2	786.9	644.3
122.5°	798.5	815.4	836.5	842.9	843.9
125°	858.7	872.5	892.5	899.9	903.1
127.5°	913.7	928.4	944.3	954.8	955.9
130°	965.4	982.3	993.9	1005.5	1004.5
132.5°	1018.2	1032.0	1043.6	1053.1	1052.0
135°	1062.6	1079.5	1089.0	1099.6	1097.4
137.5°	1109.1	1121.7	1132.3	1142.9	1139.7
140°	1154.5	1162.9	1174.5	1184.1	1178.8
142.5°	1192.5	1199.9	1213.6	1222.1	1216.8
145°	1232.6	1231.6	1249.5	1256.9	1251.7
147.5°	1267.5	1264.3	1282.3	1287.6	1283.3
150°	1301.3	1293.9	1310.8	1317.1	1311.9
152.5°	1329.8	1321.4	1337.2	1343.5	1336.2
155°	1357.3	1347.8	1360.4	1366.8	1358.3
157.5°	1379.5	1371.0	1380.5	1387.9	1379.5
160°	1398.5	1392.1	1398.5	1404.8	1397.4
162.5°	1415.4	1409.0	1414.3	1421.7	1412.2
165°	1430.2	1423.8	1427.0	1434.4	1427.0
167.5°	1441.8	1435.4	1438.6	1446.0	1436.5
170°	1451.3	1444.9	1447.1	1454.5	1444.9
172.5°	1457.6	1451.3	1453.4	1460.8	1451.3
175°	1462.9	1455.5	1457.6	1465.0	1454.5
177.5°	1465.0	1457.6	1458.7	1466.1	1456.6
180°	1459.7	1459.7	1459.7	1459.7	1459.7

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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	11.90	12.61	13.00	13.71	15.22	12.68	13.39	13.78	14.49	16.01
	3H	13.22	13.86	14.33	14.97	16.50	14.29	14.93	15.40	16.04	17.57
	4H	13.62	14.23	14.74	15.34	16.87	14.88	15.49	16.00	16.59	18.13
	6H	13.83	14.39	14.96	15.50	17.05	15.27	15.83	16.40	16.94	18.49
	8H	13.86	14.39	14.99	15.52	17.06	15.38	15.91	16.51	17.04	18.58
	12H	13.84	14.35	14.98	15.47	17.03	15.42	15.92	16.55	17.04	18.61
4H	2H	12.35	12.95	13.47	14.06	15.60	12.99	13.60	14.12	14.71	16.24
	3H	13.85	14.36	14.98	15.49	17.04	14.76	15.26	15.89	16.40	17.95
	4H	14.35	14.82	15.49	15.94	17.51	15.43	15.90	16.57	17.02	18.59
	6H	14.64	15.04	15.79	16.19	17.75	15.92	16.32	17.06	17.47	19.03
	8H	14.70	15.07	15.84	16.21	17.79	16.06	16.43	17.20	17.57	19.15
	12H	14.69	15.03	15.85	16.18	17.76	16.11	16.45	17.27	17.60	19.18
8H	4H	14.51	14.89	15.66	16.03	17.60	15.51	15.88	16.65	17.02	18.59
	6H	14.89	15.20	16.06	16.38	17.95	16.07	16.38	17.23	17.56	19.13
	8H	14.99	15.26	16.16	16.42	18.01	16.26	16.52	17.42	17.68	19.28
	12H	15.02	15.25	16.19	16.41	18.04	16.35	16.58	17.52	17.74	19.37
12H	4H	14.49	14.83	15.65	15.98	17.56	15.46	15.80	16.62	16.95	18.53
	6H	14.91	15.18	16.08	16.34	17.93	16.06	16.33	17.23	17.49	19.08
	8H	15.01	15.25	16.19	16.41	18.03	16.25	16.48	17.42	17.64	19.27