

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: P998424

Luminaire Tested: SA2XXDIP-B485D1080UB40-4F0-XX-W2A-F1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998424
REPORT IS A COMBINATION OF REPORTS P984167 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B485D1080UB40-4F0-XX-W2A-F1
Description: Define 2 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

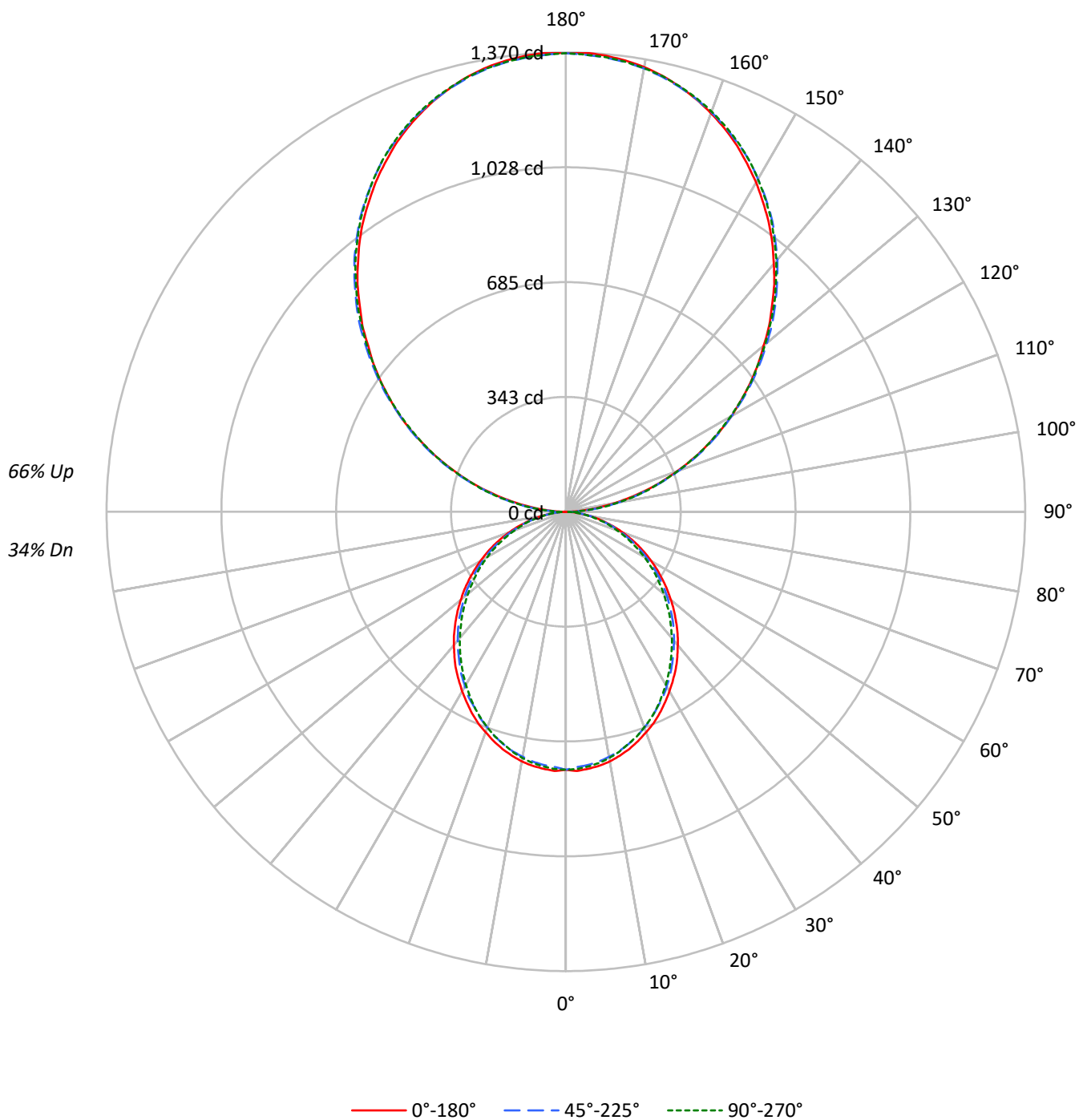
Lumens per Lamp: N/A
Luminaire Lumens: 5785.0 lumens
Efficiency: N/A
Efficacy: 98.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

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	93	93	93	93	74	74	74	57	57	57	41	41	41
1	94	90	86	83	85	81	78	75	65	63	61	50	49	47	36	36	35
2	86	79	73	68	77	71	66	62	57	53	50	44	42	40	32	31	29
3	78	69	62	56	70	62	56	51	50	46	42	39	36	33	28	27	25
4	71	61	53	47	64	55	49	44	45	40	36	35	31	29	25	23	21
5	65	54	46	40	59	49	42	37	40	35	31	31	28	25	23	21	19
6	60	49	41	35	54	44	37	32	36	31	27	28	24	22	21	18	16
7	56	44	36	31	50	40	33	28	32	27	24	25	22	19	19	16	15
8	52	40	32	27	46	36	29	25	29	24	21	23	20	17	17	15	13
9	48	36	29	24	43	33	26	22	27	22	19	21	18	15	16	14	12
10	45	33	26	21	40	30	24	20	25	20	17	20	16	14	15	12	11

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	1.3
10°-20°	203.7	3.5
20°-30°	299.3	5.2
30°-40°	347.7	6.0
40°-50°	347.2	6.0
50°-60°	302.8	5.2
60°-70°	223.8	3.9
70°-80°	126.6	2.2
80°-90°	37.3	0.6
90°-100°	84.6	1.5
100°-110°	269.0	4.6
110°-120°	460.3	8.0
120°-130°	605.3	10.5
130°-140°	679.5	11.7
140°-150°	666.3	11.5
150°-160°	558.9	9.7
160°-170°	370.7	6.4
170°-180°	129.6	2.2
0°-30°	575.4	9.9
0°-40°	923.1	16.0
0°-60°	1573.1	27.2
0°-90°	1960.9	33.9
90°-120°	813.9	14.1
90°-150°	2764.9	47.8
90°-180°	3824.0	66.1
0°-180°	5785.0	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	15	40	38	39	6
95°	60	72	74	74	72	67
105°	248	252	254	256	256	262
115°	462	469	466	465	462	457
125°	672	682	679	675	674	600
135°	869	882	884	883	880	672
145°	1055	1063	1070	1071	1066	659
155°	1206	1210	1213	1219	1215	555
165°	1312	1311	1311	1319	1314	370
175°	1366	1362	1360	1368	1361	130
180°	1368	1368	1368	1368	1368	

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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°	1.2	15.0	40.4	38.1	39.2
92.5°	25.4	34.6	35.8	36.9	36.9
95°	60.0	71.6	73.9	73.9	71.6
97.5°	100.4	110.8	115.4	115.4	115.4
100°	146.6	155.8	159.3	159.3	158.1
102.5°	195.1	202.0	206.6	207.8	206.6
105°	248.2	251.6	253.9	256.2	256.2
107.5°	301.3	305.9	305.9	307.0	301.3
110°	352.0	359.0	359.0	359.0	355.5

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	407.5	414.4	413.2	409.8	407.5
115°	461.7	468.6	466.3	465.2	461.7
117.5°	516.0	525.2	519.4	516.0	512.5
120°	570.2	579.4	570.2	570.2	566.7
122.5°	619.8	631.4	625.6	622.1	619.8
125°	671.8	682.2	678.7	675.2	674.1
127.5°	722.6	735.3	730.6	726.0	722.6
130°	769.9	784.9	782.6	780.3	775.7
132.5°	823.0	834.5	835.7	829.9	826.5
135°	869.2	881.9	884.2	883.0	879.5
137.5°	919.9	930.3	932.6	931.5	926.9
140°	965.0	975.4	981.1	981.1	976.5
142.5°	1011.1	1021.5	1025.0	1026.1	1021.5
145°	1055.0	1063.1	1070.0	1071.2	1066.5
147.5°	1094.2	1104.6	1109.2	1111.6	1106.9
150°	1134.6	1141.6	1146.2	1149.6	1146.2
152.5°	1170.4	1177.3	1183.1	1187.7	1183.1
155°	1206.2	1209.7	1213.1	1218.9	1215.4
157.5°	1237.4	1239.7	1242.0	1250.1	1244.3
160°	1265.1	1267.4	1268.5	1275.5	1270.8
162.5°	1290.5	1290.5	1291.6	1299.7	1293.9
165°	1312.4	1311.2	1311.2	1319.3	1313.5
167.5°	1332.0	1328.6	1328.6	1336.6	1330.9
170°	1347.0	1343.6	1342.4	1350.5	1343.6
172.5°	1357.4	1353.9	1352.8	1360.9	1353.9
175°	1365.5	1362.0	1359.7	1367.8	1360.9
177.5°	1370.1	1366.6	1364.3	1371.3	1364.3
180°	1367.8	1367.8	1367.8	1367.8	1367.8

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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	12.21	12.94	13.29	14.03	15.51	12.99	13.72	14.08	14.81	16.29
	3H	13.54	14.19	14.63	15.29	16.79	14.61	15.26	15.70	16.36	17.86
	4H	13.94	14.56	15.04	15.65	17.16	15.19	15.82	16.30	16.91	18.42
	6H	14.15	14.72	15.26	15.82	17.34	15.59	16.16	16.70	17.26	18.78
	8H	14.17	14.72	15.29	15.83	17.35	15.69	16.24	16.81	17.35	18.87
	12H	14.16	14.68	15.28	15.79	17.32	15.73	16.25	16.86	17.36	18.90
4H	2H	12.66	13.29	13.77	14.38	15.89	13.31	13.93	14.42	15.02	16.53
	3H	14.17	14.69	15.28	15.81	17.33	15.07	15.59	16.19	16.71	18.23
	4H	14.67	15.15	15.79	16.26	17.80	15.75	16.23	16.87	17.34	18.88
	6H	14.96	15.37	16.09	16.51	18.04	16.24	16.65	17.37	17.78	19.31
	8H	15.02	15.40	16.15	16.53	18.07	16.38	16.76	17.51	17.89	19.43
	12H	15.01	15.36	16.16	16.50	18.05	16.43	16.78	17.58	17.92	19.47
8H	4H	14.83	15.22	15.96	16.34	17.89	15.83	16.21	16.95	17.33	18.88
	6H	15.21	15.53	16.36	16.69	18.24	16.39	16.70	17.54	17.87	19.42
	8H	15.31	15.59	16.47	16.74	18.30	16.58	16.85	17.73	18.00	19.56
	12H	15.34	15.58	16.50	16.73	18.33	16.67	16.91	17.83	18.05	19.66
12H	4H	14.81	15.16	15.95	16.29	17.85	15.78	16.13	16.93	17.27	18.82
	6H	15.23	15.51	16.38	16.65	18.22	16.38	16.66	17.53	17.80	19.37
	8H	15.34	15.58	16.49	16.72	18.32	16.57	16.81	17.73	17.96	19.56