

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: P997801

Luminaire Tested: SA2XXDIP-B1005D1080UB2750-4F0-XX-W2A-D_4000K

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P997801
REPORT IS A COMBINATION OF REPORTS P983535 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B1005D1080UB2750-4F0-XX-W2A-D_4000K
Description: Define 2 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

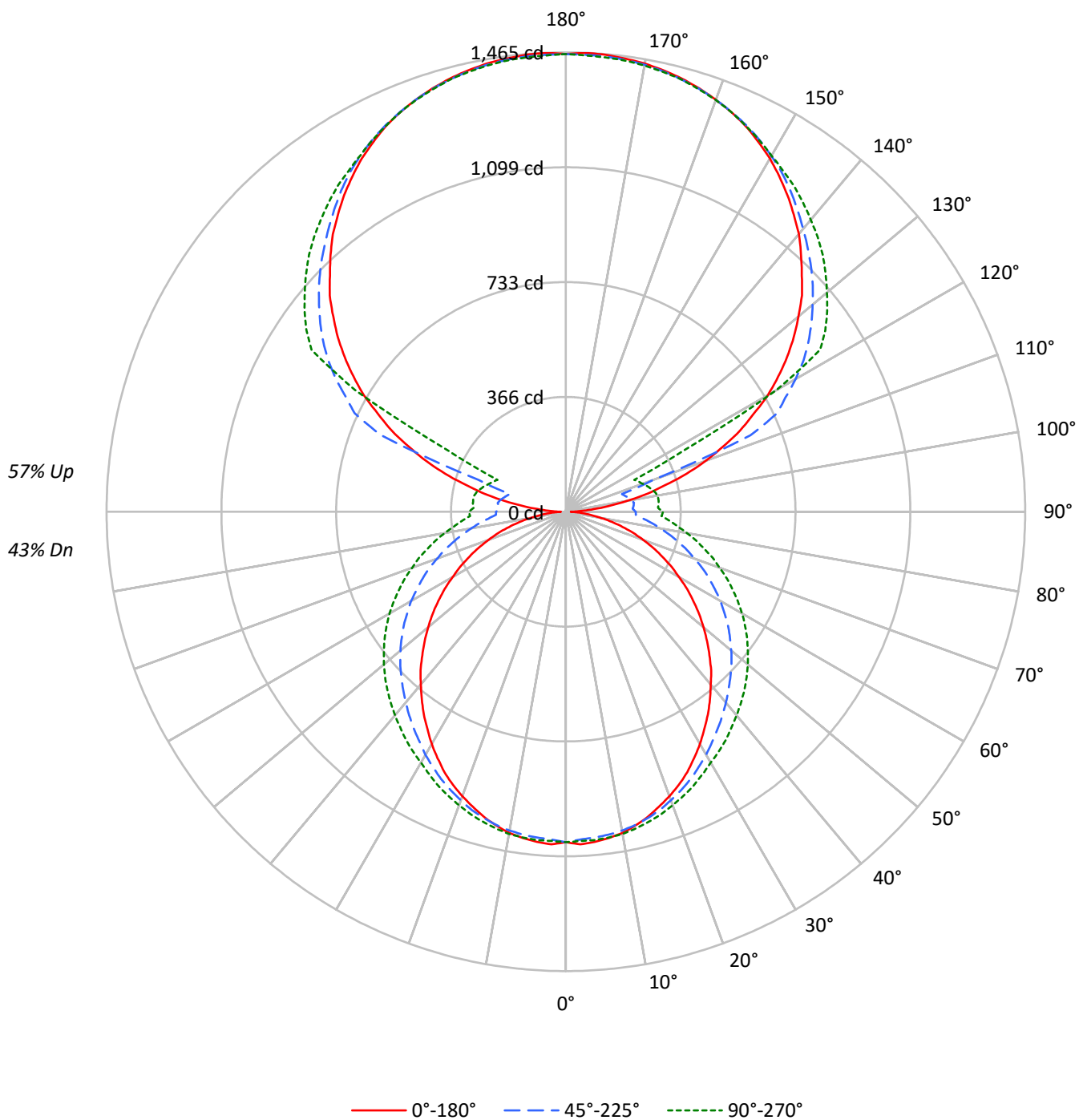
Lumens per Lamp: N/A
Luminaire Lumens: 8303.0 lumens
Efficiency: N/A
Efficacy: 86.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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	105	105	105	105	96	96	96	96	79	79	79	64	64	64	50	50	50
1	95	90	86	82	86	82	79	75	68	65	63	54	52	51	42	41	39
2	86	78	71	66	78	71	65	61	59	54	51	47	44	41	36	34	32
3	78	68	60	54	71	62	55	50	51	46	42	41	37	34	32	29	27
4	71	60	52	45	65	55	48	42	45	40	35	36	32	29	28	25	23
5	65	53	45	39	59	49	41	36	40	35	30	32	28	25	25	22	20
6	60	47	39	33	54	44	36	31	36	30	26	29	25	22	23	20	17
7	55	43	35	29	50	39	32	27	33	27	23	26	22	19	21	17	15
8	51	39	31	25	47	36	29	24	30	24	20	24	20	17	19	16	13
9	48	35	28	22	43	32	26	21	27	22	18	22	18	15	17	14	12
10	44	32	25	20	40	30	23	19	25	20	16	20	16	13	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16681	16681	16681
5°	16757	15969	15880
10°	16645	15416	15191
15°	16409	14845	14486
20°	16112	14243	13816
25°	15821	13668	13209
30°	15411	13083	12607
35°	14996	12520	12166
40°	14558	12033	11726
45°	14144	11591	11345
50°	13695	11183	10966
55°	13227	10751	10583
60°	12651	10300	10179
65°	12055	9782	9714
70°	11377	9225	9213
75°	10511	8668	8741
80°	9141	8090	8252
85°	7769	7544	7828

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14144 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.9	1.2
10°-20°	286.5	3.5
20°-30°	434.1	5.2
30°-40°	528.7	6.4
40°-50°	568.8	6.9
50°-60°	552.4	6.7
60°-70°	482.4	5.8
70°-80°	371.3	4.5
80°-90°	251.2	3.0
90°-100°	219.7	2.6
100°-110°	304.7	3.7
110°-120°	558.6	6.7
120°-130°	835.4	10.1
130°-140°	857.8	10.3
140°-150°	782.5	9.4
150°-160°	626.5	7.5
160°-170°	403.7	4.9
170°-180°	138.9	1.7
0°-30°	820.6	9.9
0°-40°	1349.2	16.2
0°-60°	2470.4	29.8
0°-90°	3575.3	43.1
90°-120°	1083.0	13.0
90°-150°	3558.6	42.9
90°-180°	4728.0	56.9
0°-180°	8303.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1054	1054	1054	1054	1054	
5°	1057	1052	1043	1052	1051	100
15°	1008	1011	1011	1025	1023	284
25°	916	927	941	959	964	421
35°	790	816	845	878	889	494
45°	648	689	742	790	805	500
55°	496	551	631	686	706	444
65°	339	414	504	567	586	337
75°	188	273	371	437	457	199
85°	55	150	247	312	333	58
90°	16	117	223	289	310	15
95°	81	118	217	280	297	91
105°	329	405	196	261	282	352
115°	613	648	743	300	241	603
125°	862	876	944	993	1010	769
135°	1064	1081	1106	1148	1158	823
145°	1233	1232	1250	1266	1268	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°	1053.8	1053.8	1053.8	1053.8	1053.8
2.5°	1061.5	1056.9	1046.2	1053.8	1050.8
5°	1056.9	1052.3	1043.1	1052.3	1050.8
7.5°	1049.2	1046.2	1038.5	1049.2	1047.7
10°	1040.1	1037.0	1032.4	1044.7	1043.1
12.5°	1024.8	1026.3	1023.3	1035.5	1034.0
15°	1008.0	1011.1	1011.1	1024.8	1023.3
17.5°	986.6	992.7	997.3	1011.1	1011.1
20°	965.2	972.9	979.0	995.8	995.8
22.5°	942.3	951.5	960.7	977.5	980.5
25°	916.4	927.1	940.8	959.1	963.7
27.5°	885.8	902.6	917.9	940.8	943.9
30°	855.3	875.1	895.0	919.4	924.0
32.5°	821.7	844.6	869.0	898.0	907.2
35°	789.6	815.6	844.6	878.2	888.9
37.5°	754.5	783.5	820.1	856.8	867.5
40°	719.3	752.9	794.2	833.9	847.6
42.5°	685.7	719.3	768.2	812.5	826.3
45°	647.6	688.8	742.3	789.6	804.9
47.5°	610.9	655.2	716.3	765.2	782.0
50°	572.7	620.1	688.8	740.7	757.5
52.5°	536.1	586.5	659.8	713.2	731.6
55°	496.4	551.3	630.8	685.7	705.6
57.5°	458.2	519.3	598.7	658.3	678.1
60°	416.9	482.6	569.7	627.7	649.1
62.5°	380.3	449.0	536.1	598.7	618.5
65°	339.1	413.9	504.0	566.6	586.5
67.5°	302.4	380.3	471.9	534.5	555.9
70°	262.7	342.1	436.8	502.5	520.8
72.5°	226.0	308.5	404.7	468.9	491.8
75°	187.9	273.4	371.1	436.8	456.7
77.5°	151.2	239.8	339.1	404.7	426.1
80°	114.5	207.7	307.0	371.1	392.5
82.5°	84.0	175.6	276.4	340.6	360.4
85°	55.0	149.7	247.4	311.6	332.9
87.5°	33.6	125.2	223.0	285.6	305.5
90°	16.4	116.6	222.7	289.1	309.5
92.5°	40.1	116.9	213.2	274.9	294.2
95°	80.9	117.8	216.8	280.2	297.4
97.5°	134.3	113.4	218.8	278.5	297.9
100°	197.7	109.4	212.9	277.9	296.8
102.5°	265.9	314.2	204.3	270.9	290.9
105°	328.7	404.7	195.7	260.8	281.9
107.5°	403.7	466.8	187.2	250.8	271.8
110°	474.0	526.8	296.3	239.6	260.6

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	541.6	585.0	637.4	231.0	251.0
115°	613.4	648.2	743.3	300.2	240.9
117.5°	674.3	707.6	789.6	684.5	423.0
120°	744.0	765.9	846.0	901.4	775.6
122.5°	803.1	821.5	899.1	946.8	961.5
125°	861.8	875.6	944.4	993.1	1010.0
127.5°	916.8	929.9	987.1	1035.7	1050.6
130°	968.5	983.8	1027.5	1075.8	1087.0
132.5°	1021.3	1033.5	1068.0	1112.7	1123.8
135°	1064.1	1081.0	1105.8	1148.5	1158.5
137.5°	1110.6	1123.2	1141.5	1181.1	1188.6
140°	1156.0	1162.9	1177.6	1211.6	1215.5
142.5°	1194.0	1199.9	1213.6	1240.4	1242.8
145°	1232.6	1231.6	1249.5	1266.1	1268.5
147.5°	1267.5	1264.3	1282.3	1289.1	1289.4
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	14.32	15.16	15.32	16.19	17.55	17.40	18.24	18.40	19.26	20.62
	3H	15.78	16.54	16.79	17.57	18.95	19.98	20.75	21.00	21.78	23.16
	4H	16.25	16.98	17.28	18.01	19.40	21.24	21.96	22.26	22.99	24.38
	6H	16.54	17.21	17.57	18.25	19.65	22.53	23.20	23.57	24.24	25.64
	8H	16.60	17.24	17.64	18.29	19.69	23.19	23.83	24.23	24.88	26.28
	12H	16.61	17.22	17.66	18.27	19.69	23.91	24.52	24.96	25.57	27.00
4H	2H	15.37	16.09	16.40	17.13	18.52	17.72	18.45	18.76	19.48	20.87
	3H	17.08	17.69	18.12	18.75	20.15	20.51	21.13	21.55	22.19	23.59
	4H	17.70	18.26	18.74	19.31	20.74	21.93	22.50	22.98	23.55	24.97
	6H	18.11	18.60	19.17	19.68	21.10	23.40	23.89	24.45	24.96	26.38
	8H	18.22	18.68	19.28	19.75	21.18	24.15	24.61	25.21	25.68	27.12
	12H	18.26	18.68	19.34	19.76	21.20	24.98	25.40	26.06	26.48	27.92
8H	4H	18.49	18.95	19.54	20.01	21.45	22.07	22.53	23.13	23.60	25.04
	6H	19.12	19.50	20.20	20.61	22.05	23.70	24.09	24.78	25.20	26.63
	8H	19.34	19.68	20.43	20.77	22.22	24.59	24.93	25.68	26.02	27.48
	12H	19.47	19.78	20.56	20.86	22.35	25.58	25.89	26.68	26.98	28.46
12H	4H	18.68	19.10	19.76	20.18	21.63	22.05	22.47	23.12	23.55	24.99
	6H	19.45	19.79	20.54	20.89	22.34	23.73	24.07	24.81	25.16	26.61
	8H	19.75	20.06	20.85	21.15	22.64	24.65	24.96	25.75	26.04	27.53

END OF REPORT