

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: P997836

Luminaire Tested: SA2XXDIP-B1005D1080UB50-4F0-XX-W2A-D1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P997836
REPORT IS A COMBINATION OF REPORTS P983573 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-D1
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

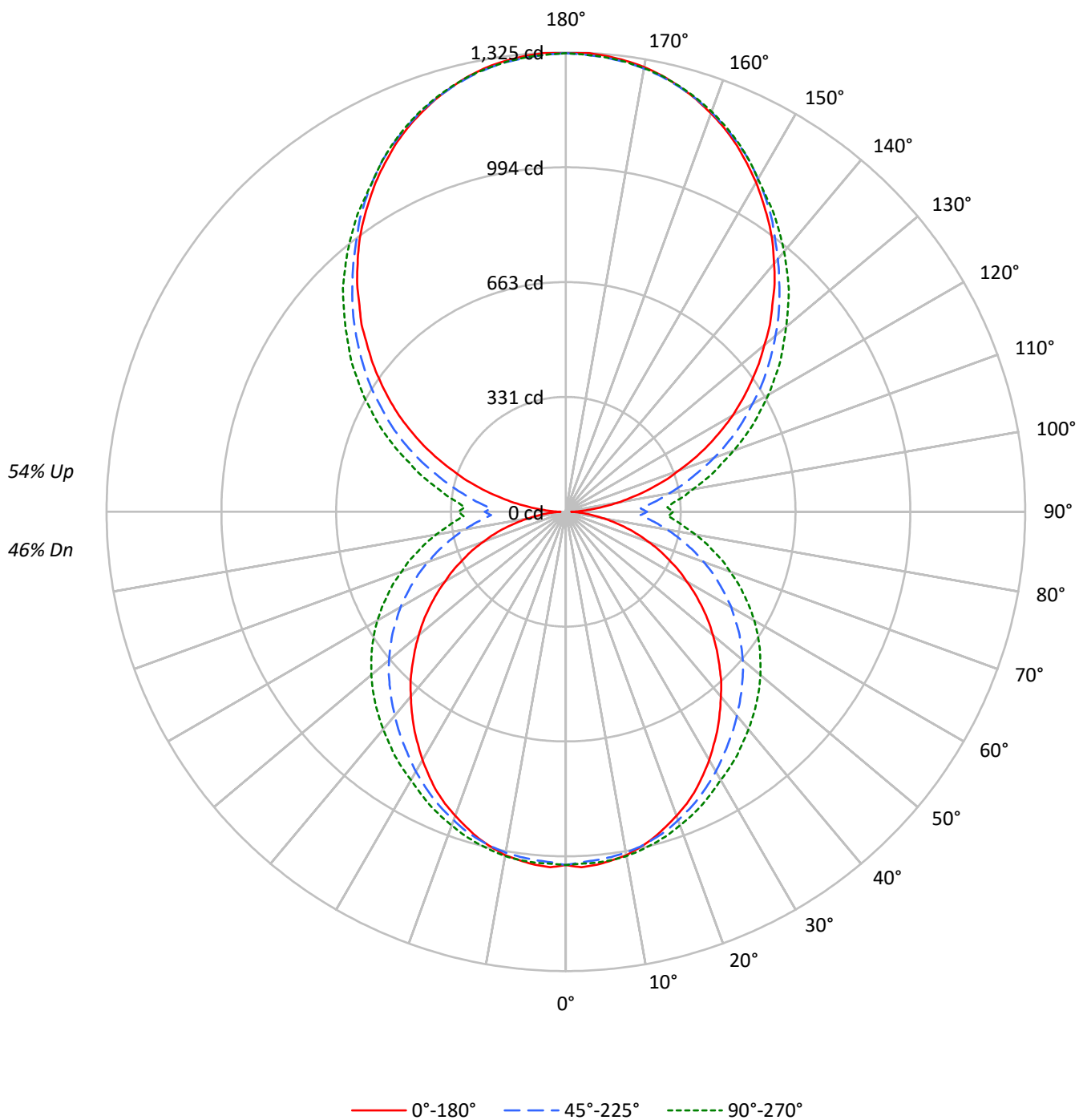
Lumens per Lamp: N/A
Luminaire Lumens: 7590.0 lumens
Efficiency: N/A
Efficacy: 78.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52
1	95	91	86	82	87	83	79	76	69	66	64	56	54	52	44	42	41
2	86	78	72	66	79	72	66	61	59	55	51	48	45	42	38	36	34
3	78	68	61	54	71	63	56	50	52	47	43	42	38	35	33	30	28
4	71	60	52	46	65	55	48	42	46	40	36	37	33	30	29	26	24
5	65	53	45	39	60	49	42	36	41	35	31	33	29	26	26	23	20
6	60	48	39	33	55	44	36	31	37	31	27	30	26	22	24	20	18
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	22	18	16
8	51	39	31	25	47	36	29	24	30	25	20	25	20	17	20	16	14
9	48	35	28	23	44	33	26	21	28	22	18	23	18	15	18	15	13
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	14	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16130	16130	16130
5°	16202	15441	15354
10°	16094	14906	14688
15°	15867	14353	14006
20°	15580	13772	13358
25°	15298	13216	12771
30°	14901	12651	12190
35°	14500	12105	11764
40°	14078	11634	11339
45°	13674	11207	10970
50°	13243	10813	10604
55°	12787	10395	10233
60°	12235	9958	9842
65°	11653	9457	9392
70°	11000	8921	8909
75°	10159	8383	8452
80°	8846	7821	7978
85°	7515	7294	7570

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 13674 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.6	1.3
10°-20°	277.0	3.7
20°-30°	419.8	5.5
30°-40°	511.2	6.7
40°-50°	550.0	7.2
50°-60°	534.1	7.0
60°-70°	466.4	6.1
70°-80°	359.0	4.7
80°-90°	244.2	3.2
90°-100°	247.7	3.3
100°-110°	381.3	5.0
110°-120°	525.1	6.9
120°-130°	630.0	8.3
130°-140°	675.8	8.9
140°-150°	647.5	8.5
150°-160°	540.5	7.1
160°-170°	358.5	4.7
170°-180°	125.3	1.7
0°-30°	793.4	10.5
0°-40°	1304.6	17.2
0°-60°	2388.7	31.5
0°-90°	3458.3	45.6
90°-120°	1154.0	15.2
90°-150°	3107.4	40.9
90°-180°	4132.0	54.4
0°-180°	7590.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1019	1019	1019	1019	1019	
5°	1022	1018	1009	1018	1016	97
15°	975	978	978	991	989	275
25°	886	896	910	927	932	407
35°	764	789	817	849	860	477
45°	626	666	718	764	778	483
55°	480	533	610	663	682	429
65°	328	400	487	548	567	326
75°	182	264	359	422	442	192
85°	53	145	239	301	322	56
90°	16	115	234	291	310	14
95°	70	150	241	297	313	74
105°	247	294	373	426	443	262
115°	452	475	540	583	596	447
125°	653	663	707	743	755	584
135°	842	854	871	901	910	651
145°	1020	1028	1035	1045	1048	638
155°	1166	1170	1173	1179	1175	537
165°	1269	1268	1268	1276	1270	358
175°	1320	1317	1315	1323	1316	125
180°	1323	1323	1323	1323	1323	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1019.0	1019.0	1019.0	1019.0	1019.0
2.5°	1026.3	1021.9	1011.6	1019.0	1016.0
5°	1021.9	1017.5	1008.6	1017.5	1016.0
7.5°	1014.5	1011.6	1004.2	1014.5	1013.1
10°	1005.7	1002.7	998.3	1010.1	1008.6
12.5°	990.9	992.4	989.4	1001.2	999.8
15°	974.7	977.6	977.6	990.9	989.4
17.5°	954.0	959.9	964.3	977.6	977.6
20°	933.3	940.7	946.6	962.8	962.8
22.5°	911.2	920.0	928.9	945.1	948.1
25°	886.1	896.4	909.7	927.4	931.8
27.5°	856.5	872.8	887.5	909.7	912.6
30°	827.0	846.2	865.4	889.0	893.4
32.5°	794.5	816.6	840.3	868.3	877.2
35°	763.5	788.6	816.6	849.1	859.5
37.5°	729.5	757.6	793.0	828.5	838.8
40°	695.6	728.0	767.9	806.3	819.6
42.5°	663.1	695.6	742.8	785.6	798.9
45°	626.1	666.0	717.7	763.5	778.3
47.5°	590.7	633.5	692.6	739.9	756.1
50°	553.8	599.6	666.0	716.2	732.5
52.5°	518.3	567.1	638.0	689.6	707.4
55°	479.9	533.1	609.9	663.1	682.3
57.5°	443.0	502.1	578.9	636.5	655.7
60°	403.2	466.7	550.8	606.9	627.6
62.5°	367.7	434.2	518.3	578.9	598.1
65°	327.8	400.2	487.3	547.9	567.1
67.5°	292.4	367.7	456.3	516.9	537.5
70°	254.0	330.8	422.4	485.9	503.6
72.5°	218.6	298.3	391.3	453.4	475.5
75°	181.6	264.3	358.9	422.4	441.6
77.5°	146.2	231.9	327.8	391.3	412.0
80°	110.8	200.8	296.8	358.9	379.5
82.5°	81.2	169.8	267.3	329.3	348.5
85°	53.2	144.7	239.2	301.3	321.9
87.5°	32.5	121.1	215.6	276.2	295.4
90°	15.9	114.9	234.0	290.8	309.7
92.5°	37.9	125.1	216.2	274.9	292.7
95°	69.8	150.4	241.2	297.3	312.9
97.5°	107.4	181.0	271.1	325.7	343.5
100°	152.1	215.7	301.7	356.3	371.5
102.5°	197.5	252.9	337.1	391.4	406.5
105°	247.4	293.5	372.6	426.5	442.7
107.5°	298.7	338.6	412.5	463.8	474.4
110°	346.4	382.6	455.0	502.3	515.1

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	399.9	430.2	497.1	541.0	555.0
115°	452.4	475.4	539.6	582.8	595.7
117.5°	503.4	524.1	580.6	621.6	632.9
120°	555.8	570.7	620.8	662.2	675.1
122.5°	603.8	616.5	665.5	702.1	713.1
125°	652.7	662.7	706.6	743.1	755.3
127.5°	701.8	712.6	747.9	780.4	790.4
130°	747.6	760.6	789.3	822.5	829.8
132.5°	798.9	808.6	831.8	860.2	868.6
135°	842.0	854.3	871.3	901.2	909.7
137.5°	891.2	901.2	910.8	937.7	943.7
140°	934.7	943.2	951.8	975.4	979.8
142.5°	979.4	987.9	991.2	1010.1	1013.0
145°	1020.3	1028.1	1034.8	1044.8	1047.6
147.5°	1058.2	1068.3	1072.7	1076.5	1076.4
150°	1097.3	1104.0	1108.5	1111.8	1108.5
152.5°	1131.9	1138.6	1144.2	1148.6	1144.2
155°	1166.5	1169.8	1173.2	1178.8	1175.4
157.5°	1196.6	1198.9	1201.1	1208.9	1203.3
160°	1223.4	1225.7	1226.8	1233.5	1229.0
162.5°	1248.0	1248.0	1249.1	1256.9	1251.3
165°	1269.2	1268.1	1268.1	1275.9	1270.3
167.5°	1288.2	1284.8	1284.8	1292.6	1287.1
170°	1302.7	1299.3	1298.2	1306.0	1299.3
172.5°	1312.7	1309.4	1308.3	1316.1	1309.4
175°	1320.5	1317.2	1315.0	1322.8	1316.1
177.5°	1325.0	1321.7	1319.4	1326.1	1319.4
180°	1322.8	1322.8	1322.8	1322.8	1322.8

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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	14.45	15.32	15.43	16.32	17.65	17.53	18.39	18.51	19.40	20.73
	3H	15.91	16.70	16.90	17.71	19.06	20.12	20.90	21.11	21.91	23.26
	4H	16.39	17.13	17.39	18.15	19.51	21.37	22.11	22.37	23.13	24.49
	6H	16.67	17.36	17.69	18.38	19.75	22.67	23.36	23.68	24.38	25.75
	8H	16.73	17.39	17.75	18.43	19.79	23.32	23.98	24.35	25.02	26.39
	12H	16.75	17.38	17.78	18.41	19.80	24.05	24.68	25.08	25.71	27.10
4H	2H	15.50	16.25	16.51	17.26	18.62	17.86	18.60	18.87	19.62	20.97
	3H	17.21	17.84	18.23	18.88	20.26	20.65	21.28	21.67	22.32	23.69
	4H	17.83	18.41	18.86	19.45	20.84	22.06	22.65	23.09	23.68	25.07
	6H	18.25	18.75	19.29	19.81	21.20	23.53	24.04	24.57	25.10	26.49
	8H	18.36	18.83	19.40	19.88	21.29	24.29	24.77	25.33	25.82	27.22
	12H	18.40	18.83	19.46	19.90	21.31	25.12	25.55	26.18	26.62	28.03
8H	4H	18.62	19.10	19.66	20.15	21.55	22.21	22.68	23.25	23.74	25.14
	6H	19.26	19.65	20.32	20.75	22.15	23.84	24.24	24.90	25.33	26.73
	8H	19.48	19.83	20.55	20.91	22.33	24.73	25.08	25.80	26.16	27.58
	12H	19.61	19.93	20.69	21.00	22.46	25.72	26.04	26.80	27.11	28.57
12H	4H	18.82	19.25	19.88	20.32	21.73	22.18	22.62	23.24	23.68	25.09
	6H	19.59	19.94	20.66	21.02	22.44	23.86	24.22	24.93	25.29	26.71
	8H	19.89	20.21	20.97	21.28	22.74	24.79	25.11	25.87	26.18	27.64