

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: P997899

Luminaire Tested: SA2XXDIP-B1005D330UB50-4F0-XX-W2A-F1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P997899
REPORT IS A COMBINATION OF REPORTS P983636 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B1005D330UB50-4F0-XX-W2A-F1
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

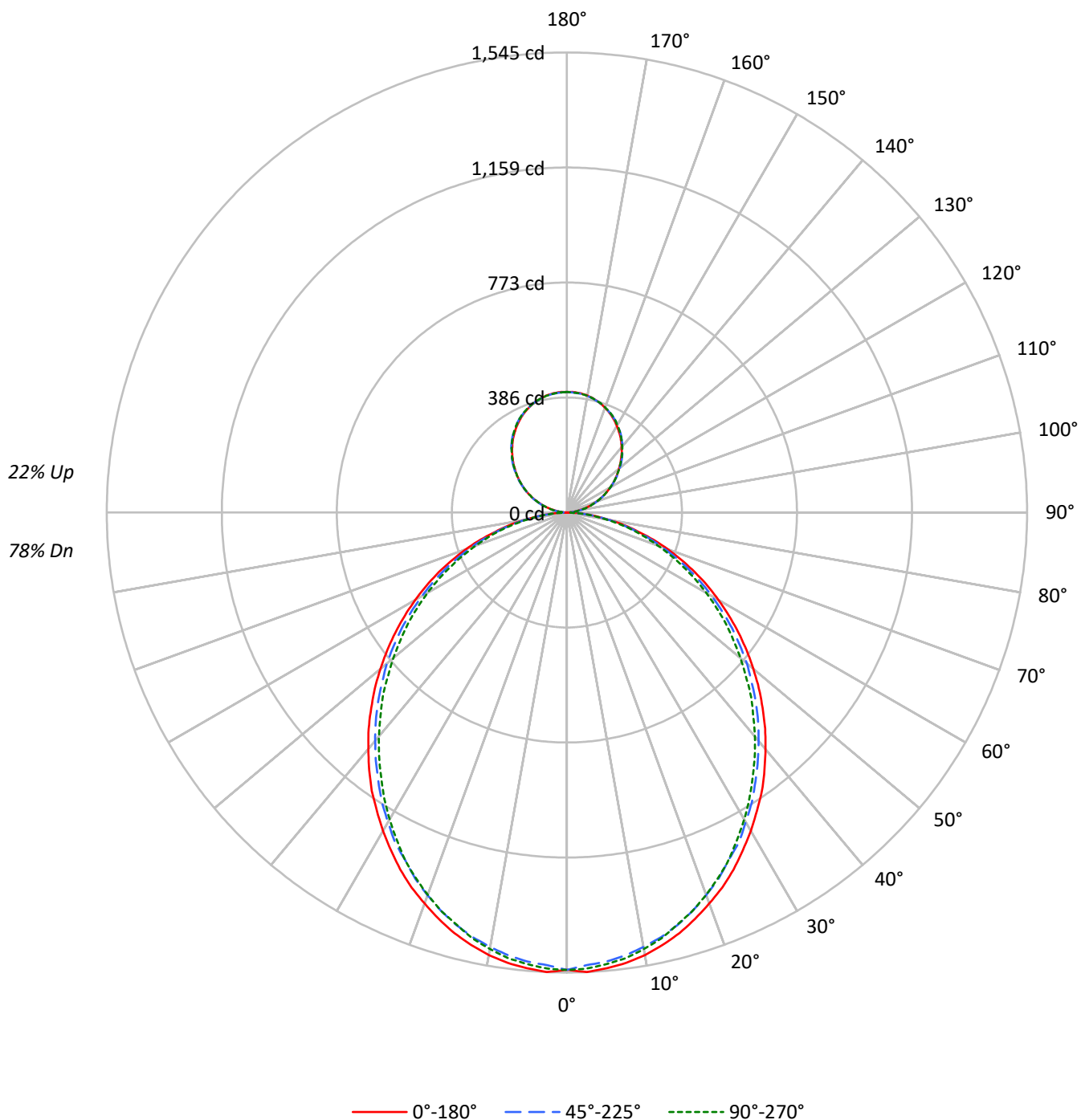
Lumens per Lamp: N/A
Luminaire Lumens: 5041.0 lumens
Efficiency: N/A
Efficacy: 71.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 70.6
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

TEST NUMBER: P997899

CATALOG NUMBER: SA2XXDIP-B1005D330UB50-4F0-XX-W2A-F1

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	114	114	114	114	108	108	108	108	99	99	99	90	90	90	81	81	81
1	104	99	95	92	99	95	91	88	87	84	81	79	77	75	72	70	69
2	95	87	80	75	90	83	77	72	76	71	67	69	66	63	63	61	58
3	86	77	69	63	82	73	66	61	67	61	57	61	57	53	56	53	49
4	79	68	60	53	75	65	57	52	60	53	49	55	50	46	50	46	43
5	73	61	52	46	69	58	50	45	54	47	42	49	44	40	45	41	37
6	67	55	46	40	64	52	45	39	48	42	37	45	39	35	41	36	33
7	62	49	41	35	59	48	40	34	44	37	33	41	35	31	38	33	29
8	58	45	37	31	55	43	36	31	40	34	29	37	32	28	35	30	26
9	54	41	33	28	52	40	33	28	37	31	26	34	29	25	32	27	24
10	51	38	31	25	48	37	30	25	34	28	24	32	27	23	30	25	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	24315	24315	24315
5°	24355	23176	23013
10°	24156	22120	21681
15°	23803	21057	20282
20°	23324	19899	18956
25°	22848	18690	17633
30°	22249	17554	16243
35°	21683	16355	14879
40°	20984	15172	13589
45°	20289	13999	12325
50°	19533	12805	11011
55°	18732	11530	9770
60°	17837	10148	8477
65°	16854	8743	7118
70°	15608	7206	5748
75°	13879	5555	4439
80°	11792	3776	2857
85°	8560	1756	1216

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 20289 cd/sqm

TEST NUMBER: P997899

CATALOG NUMBER: SA2XXDIP-B1005D330UB50-4F0-XX-W2A-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.6	2.9
10°-20°	406.8	8.1
20°-30°	597.8	11.9
30°-40°	694.3	13.8
40°-50°	693.4	13.8
50°-60°	604.6	12.0
60°-70°	446.9	8.9
70°-80°	252.9	5.0
80°-90°	67.9	1.3
90°-100°	25.0	0.5
100°-110°	79.6	1.6
110°-120°	136.2	2.7
120°-130°	179.2	3.6
130°-140°	201.1	4.0
140°-150°	197.2	3.9
150°-160°	165.4	3.3
160°-170°	109.7	2.2
170°-180°	38.3	0.8
0°-30°	1149.1	22.8
0°-40°	1843.4	36.6
0°-60°	3141.4	62.3
0°-90°	3909.2	77.5
90°-120°	240.9	4.8
90°-150°	818.4	16.2
90°-180°	1132.0	22.5
0°-180°	5041.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1536	1536	1536	1536	1536	
5°	1536	1530	1514	1526	1523	146
15°	1462	1453	1434	1440	1433	412
25°	1323	1312	1286	1289	1286	609
35°	1142	1127	1103	1094	1087	713
45°	929	919	896	880	874	717
55°	703	694	676	659	651	629
65°	474	465	450	437	430	469
75°	248	245	238	229	232	265
85°	61	59	58	53	52	67
90°	0	4	12	11	12	5
95°	18	21	22	22	21	20
105°	74	74	75	76	76	78
115°	137	139	138	138	137	135
125°	199	202	201	200	200	178
135°	257	261	262	261	260	199
145°	312	315	317	317	316	195
155°	357	358	359	361	360	164
165°	388	388	388	390	389	110
175°	404	403	402	405	403	38
180°	405	405	405	405	405	

TEST NUMBER: P997899

CATALOG NUMBER: SA2XXDIP-B1005D330UB50-4F0-XX-W2A-F1

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1536.1	1536.1	1536.1	1536.1	1536.1
2.5°	1544.9	1537.5	1521.3	1536.1	1533.1
5°	1536.1	1530.2	1513.9	1525.7	1522.8
7.5°	1525.7	1516.9	1500.6	1512.4	1509.5
10°	1509.5	1499.1	1481.4	1493.2	1488.8
12.5°	1487.3	1478.5	1460.7	1468.1	1465.2
15°	1462.2	1453.4	1434.2	1440.1	1432.7
17.5°	1431.2	1422.3	1403.1	1410.5	1403.1
20°	1397.2	1388.4	1367.7	1372.1	1366.2
22.5°	1363.3	1350.0	1330.8	1330.8	1327.8
25°	1323.4	1311.6	1286.5	1289.4	1286.5
27.5°	1279.1	1268.7	1249.5	1245.1	1237.7
30°	1234.8	1222.9	1200.8	1196.4	1190.5
32.5°	1187.5	1178.6	1155.0	1146.1	1140.2
35°	1141.7	1126.9	1103.3	1094.4	1087.1
37.5°	1090.0	1076.7	1053.1	1042.8	1035.4
40°	1036.8	1025.0	1001.4	988.1	982.2
42.5°	985.2	973.3	949.7	934.9	926.1
45°	929.0	918.7	896.5	880.3	874.4
47.5°	874.4	864.0	840.4	824.2	815.3
50°	816.8	809.4	788.7	768.0	760.6
52.5°	760.6	750.3	731.1	714.9	704.5
55°	703.0	694.2	676.5	658.7	651.4
57.5°	645.4	638.1	618.9	601.1	595.2
60°	587.8	581.9	561.3	545.0	540.6
62.5°	531.7	521.4	506.6	491.8	485.9
65°	474.1	465.3	450.5	437.2	429.8
67.5°	415.0	407.6	394.4	384.0	378.1
70°	360.4	354.5	341.2	330.8	324.9
72.5°	304.3	298.4	291.0	280.6	276.2
75°	248.1	245.2	237.8	228.9	231.9
77.5°	197.9	192.0	189.1	184.6	180.2
80°	147.7	146.2	143.3	138.8	135.9
82.5°	100.4	100.4	99.0	93.1	93.1
85°	60.6	59.1	57.6	53.2	51.7
87.5°	26.6	23.6	20.7	16.2	14.8
90°	0.3	4.4	12.0	11.3	11.6
92.5°	7.5	10.2	10.6	10.9	10.9
95°	17.8	21.2	21.9	21.9	21.2
97.5°	29.7	32.8	34.2	34.2	34.2
100°	43.4	46.1	47.1	47.1	46.8
102.5°	57.7	59.8	61.2	61.5	61.2
105°	73.5	74.5	75.2	75.8	75.8
107.5°	89.2	90.5	90.5	90.9	89.2
110°	104.2	106.2	106.2	106.2	105.2



TEST NUMBER: P997899

CATALOG NUMBER: SA2XXDIP-B1005D330UB50-4F0-XX-W2A-F1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	120.6	122.6	122.3	121.3	120.6
115°	136.7	138.7	138.0	137.7	136.7
117.5°	152.7	155.4	153.7	152.7	151.7
120°	168.8	171.5	168.8	168.8	167.7
122.5°	183.5	186.9	185.2	184.1	183.5
125°	198.8	201.9	200.9	199.9	199.5
127.5°	213.9	217.6	216.3	214.9	213.9
130°	227.9	232.3	231.6	230.9	229.6
132.5°	243.6	247.0	247.3	245.6	244.6
135°	257.3	261.0	261.7	261.4	260.3
137.5°	272.3	275.4	276.0	275.7	274.3
140°	285.6	288.7	290.4	290.4	289.0
142.5°	299.3	302.3	303.4	303.7	302.3
145°	312.3	314.6	316.7	317.0	315.7
147.5°	323.9	326.9	328.3	329.0	327.6
150°	335.8	337.9	339.2	340.3	339.2
152.5°	346.4	348.5	350.2	351.5	350.2
155°	357.0	358.0	359.1	360.8	359.7
157.5°	366.2	366.9	367.6	370.0	368.3
160°	374.4	375.1	375.5	377.5	376.1
162.5°	381.9	381.9	382.3	384.7	383.0
165°	388.4	388.1	388.1	390.5	388.8
167.5°	394.2	393.2	393.2	395.6	393.9
170°	398.7	397.7	397.3	399.7	397.7
172.5°	401.8	400.7	400.4	402.8	400.7
175°	404.2	403.1	402.4	404.8	402.8
177.5°	405.5	404.5	403.8	405.9	403.8
180°	404.8	404.8	404.8	404.8	404.8

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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	18.56	19.74	19.24	20.43	21.25	19.34	20.52	20.02	21.21	22.03
	3H	19.92	20.98	20.61	21.68	22.53	20.99	22.05	21.68	22.75	23.60
	4H	20.34	21.34	21.05	22.05	22.91	21.59	22.59	22.30	23.31	24.17
	6H	20.57	21.49	21.30	22.22	23.10	22.01	22.94	22.74	23.66	24.54
	8H	20.61	21.49	21.35	22.24	23.11	22.13	23.01	22.86	23.76	24.63
	12H	20.61	21.45	21.35	22.19	23.10	22.19	23.03	22.93	23.77	24.67
4H	2H	19.06	20.06	19.78	20.78	21.64	19.71	20.71	20.42	21.42	22.28
	3H	20.61	21.44	21.33	22.20	23.08	21.51	22.35	22.24	23.10	23.98
	4H	21.13	21.89	21.87	22.64	23.55	22.21	22.97	22.95	23.72	24.63
	6H	21.45	22.11	22.21	22.89	23.80	22.72	23.38	23.48	24.16	25.08
	8H	21.51	22.13	22.28	22.90	23.83	22.87	23.49	23.64	24.26	25.19
	12H	21.53	22.08	22.31	22.88	23.81	22.95	23.50	23.74	24.30	25.24
8H	4H	21.33	21.94	22.09	22.72	23.65	22.32	22.93	23.08	23.71	24.64
	6H	21.72	22.23	22.52	23.05	23.98	22.90	23.41	23.70	24.23	25.16
	8H	21.83	22.28	22.64	23.10	24.05	23.09	23.55	23.90	24.37	25.31
	12H	21.88	22.28	22.69	23.08	24.09	23.21	23.61	24.02	24.42	25.42
12H	4H	21.33	21.88	22.11	22.68	23.61	22.30	22.85	23.08	23.65	24.58
	6H	21.74	22.20	22.55	23.02	23.96	22.90	23.35	23.70	24.17	25.11
	8H	21.87	22.27	22.68	23.08	24.09	23.11	23.51	23.92	24.32	25.32