

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: P997898

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

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P997898
REPORT IS A COMBINATION OF REPORTS P983635 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-F
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

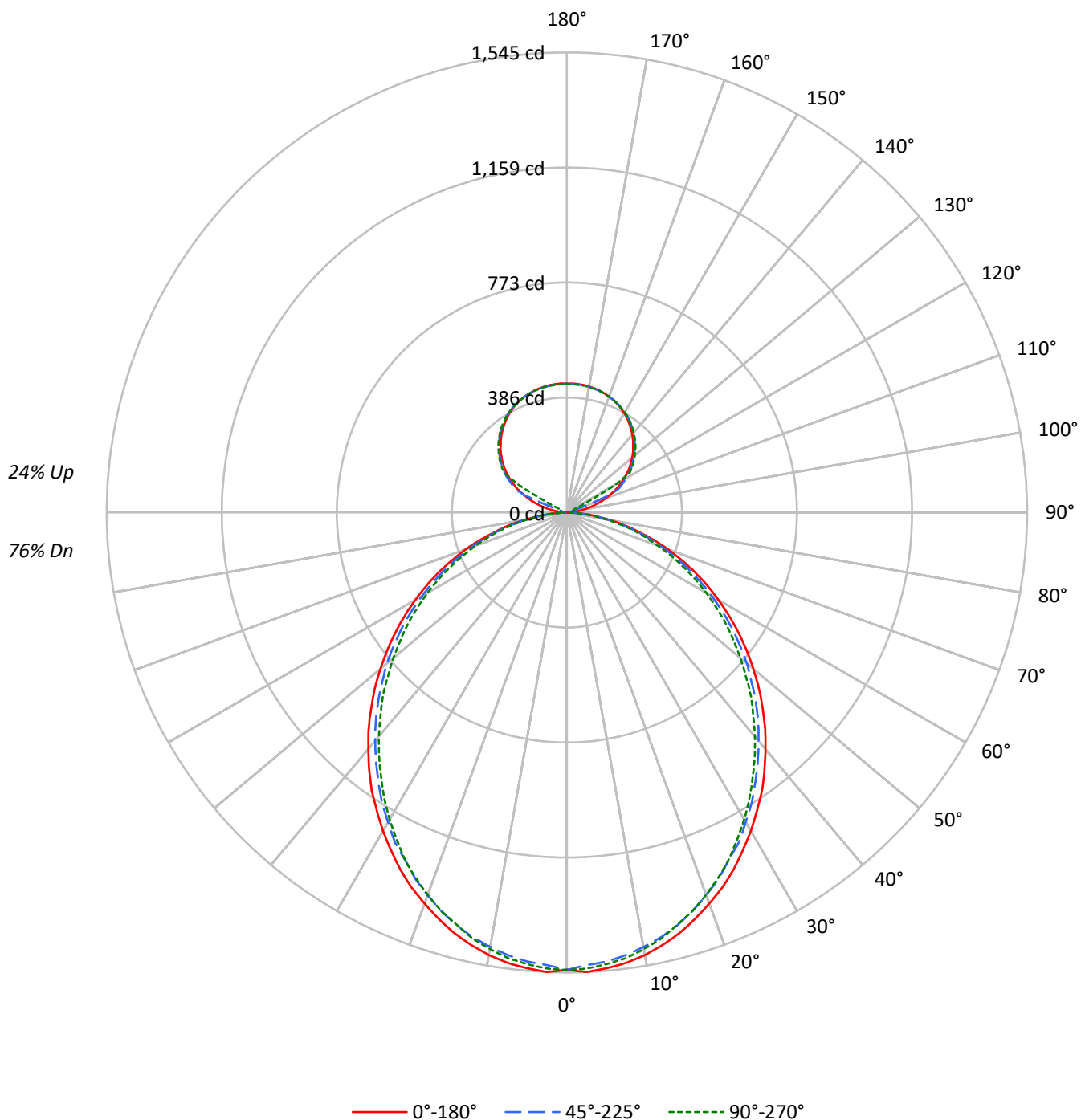
Lumens per Lamp: N/A
Luminaire Lumens: 5176.0 lumens
Efficiency: N/A
Efficacy: 73.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

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

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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	113	113	113	113	108	108	108	108	98	98	98	88	88	88	80	80	80
1	104	99	95	91	98	94	91	88	86	83	80	78	76	74	70	69	67
2	94	87	80	75	89	83	77	72	75	71	67	68	65	62	62	59	57
3	86	76	68	62	82	73	66	60	66	61	56	60	56	52	55	51	48
4	79	68	59	53	75	65	57	51	59	53	48	54	49	45	49	45	42
5	73	60	52	46	69	58	50	44	53	47	42	49	43	39	44	40	36
6	67	54	46	40	63	52	44	39	48	41	36	44	38	34	40	36	32
7	62	49	41	35	59	47	40	34	44	37	32	40	35	30	37	32	29
8	58	45	37	31	55	43	36	30	40	33	29	37	31	27	34	29	26
9	54	41	33	28	51	40	32	27	37	30	26	34	28	25	31	27	23
10	50	38	30	25	48	36	29	25	34	28	23	31	26	22	29	24	21

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

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.6	2.8
10°-20°	406.8	7.9
20°-30°	597.8	11.5
30°-40°	694.3	13.4
40°-50°	693.4	13.4
50°-60°	604.6	11.7
60°-70°	446.9	8.6
70°-80°	252.9	4.9
80°-90°	67.5	1.3
90°-100°	14.3	0.3
100°-110°	53.1	1.0
110°-120°	140.9	2.7
120°-130°	233.7	4.5
130°-140°	248.3	4.8
140°-150°	230.7	4.5
150°-160°	185.5	3.6
160°-170°	119.5	2.3
170°-180°	41.1	0.8
0°-30°	1149.1	22.2
0°-40°	1843.4	35.6
0°-60°	3141.4	60.7
0°-90°	3908.8	75.5
90°-120°	208.3	4.0
90°-150°	921.1	17.8
90°-180°	1267.0	24.5
0°-180°	5176.0	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	6	8	8	5
95°	20	10	12	14	13	24
105°	95	104	19	22	24	102
115°	180	185	193	48	26	177
125°	254	258	264	266	267	227
135°	315	320	322	326	325	243
145°	365	365	370	372	371	228
155°	402	399	403	405	402	185
165°	424	422	423	425	423	120
175°	433	431	432	434	431	41
180°	432	432	432	432	432	

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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	3.8	6.3	7.8	8.4
92.5°	7.8	6.6	7.5	8.1	8.4
95°	20.3	10.0	12.2	13.8	13.4
97.5°	36.6	10.9	16.0	16.9	17.2
100°	55.4	12.5	17.8	20.3	21.0
102.5°	76.0	75.4	18.5	21.9	22.8
105°	95.1	104.5	19.1	22.5	23.8
107.5°	117.3	125.1	19.7	23.1	24.4
110°	138.6	145.1	54.7	23.5	24.7

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	158.6	164.2	158.9	24.1	25.0
115°	179.8	185.2	193.0	48.2	25.6
117.5°	198.3	204.6	209.9	165.1	83.2
120°	218.9	223.6	229.3	233.0	190.8
122.5°	236.5	241.5	247.7	249.6	249.9
125°	254.3	258.4	264.3	266.5	267.4
127.5°	270.6	274.9	279.6	282.8	283.1
130°	285.9	290.9	294.3	297.8	297.5
132.5°	301.5	305.6	309.0	311.8	311.5
135°	314.7	319.7	322.5	325.6	325.0
137.5°	328.4	332.2	335.3	338.4	337.5
140°	341.9	344.4	347.8	350.6	349.1
142.5°	353.1	355.3	359.4	361.9	360.3
145°	365.0	364.7	370.0	372.2	370.6
147.5°	375.3	374.4	379.7	381.3	380.0
150°	385.3	383.2	388.2	390.0	388.5
152.5°	393.8	391.3	396.0	397.9	395.7
155°	401.9	399.1	402.9	404.7	402.2
157.5°	408.5	406.0	408.8	411.0	408.5
160°	414.1	412.2	414.1	416.0	413.8
162.5°	419.1	417.2	418.8	421.0	418.2
165°	423.5	421.6	422.6	424.8	422.6
167.5°	426.9	425.1	426.0	428.2	425.4
170°	429.8	427.9	428.5	430.7	427.9
172.5°	431.6	429.8	430.4	432.6	429.8
175°	433.2	431.0	431.6	433.8	430.7
177.5°	433.8	431.6	431.9	434.1	431.3
180°	432.3	432.3	432.3	432.3	432.3

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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	18.41	19.56	19.11	20.28	21.13	19.19	20.34	19.89	21.06	21.91
	3H	19.77	20.80	20.48	21.53	22.42	20.84	21.87	21.55	22.60	23.49
	4H	20.18	21.16	20.92	21.90	22.80	21.44	22.42	22.18	23.16	24.06
	6H	20.42	21.32	21.16	22.07	22.98	21.86	22.76	22.61	23.51	24.42
	8H	20.46	21.31	21.21	22.08	23.00	21.98	22.83	22.73	23.60	24.52
	12H	20.46	21.28	21.22	22.04	22.98	22.03	22.85	22.79	23.61	24.56
4H	2H	18.91	19.89	19.65	20.63	21.53	19.55	20.53	20.29	21.27	22.17
	3H	20.45	21.27	21.20	22.05	22.96	21.36	22.17	22.11	22.95	23.87
	4H	20.97	21.71	21.74	22.49	23.43	22.05	22.79	22.82	23.57	24.52
	6H	21.29	21.93	22.07	22.73	23.69	22.56	23.21	23.35	24.01	24.96
	8H	21.35	21.95	22.14	22.75	23.72	22.71	23.31	23.50	24.11	25.08
	12H	21.37	21.91	22.18	22.73	23.70	22.79	23.33	23.60	24.15	25.12
8H	4H	21.17	21.77	21.96	22.57	23.53	22.16	22.76	22.95	23.56	24.52
	6H	21.56	22.06	22.38	22.90	23.87	22.74	23.24	23.56	24.08	25.05
	8H	21.67	22.11	22.50	22.95	23.93	22.93	23.38	23.76	24.22	25.20
	12H	21.71	22.11	22.55	22.93	23.97	23.05	23.44	23.88	24.27	25.30
12H	4H	21.17	21.71	21.97	22.53	23.50	22.14	22.68	22.95	23.50	24.47
	6H	21.58	22.03	22.41	22.87	23.85	22.74	23.18	23.56	24.02	25.00
	8H	21.71	22.10	22.54	22.93	23.97	22.95	23.34	23.78	24.17	25.20