

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: P999087

Luminaire Tested: SA2XXDIP-B865D330UB50-4F0-XX-W2A-F1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P999087
REPORT IS A COMBINATION OF REPORTS P984836 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B865D330UB50-4F0-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

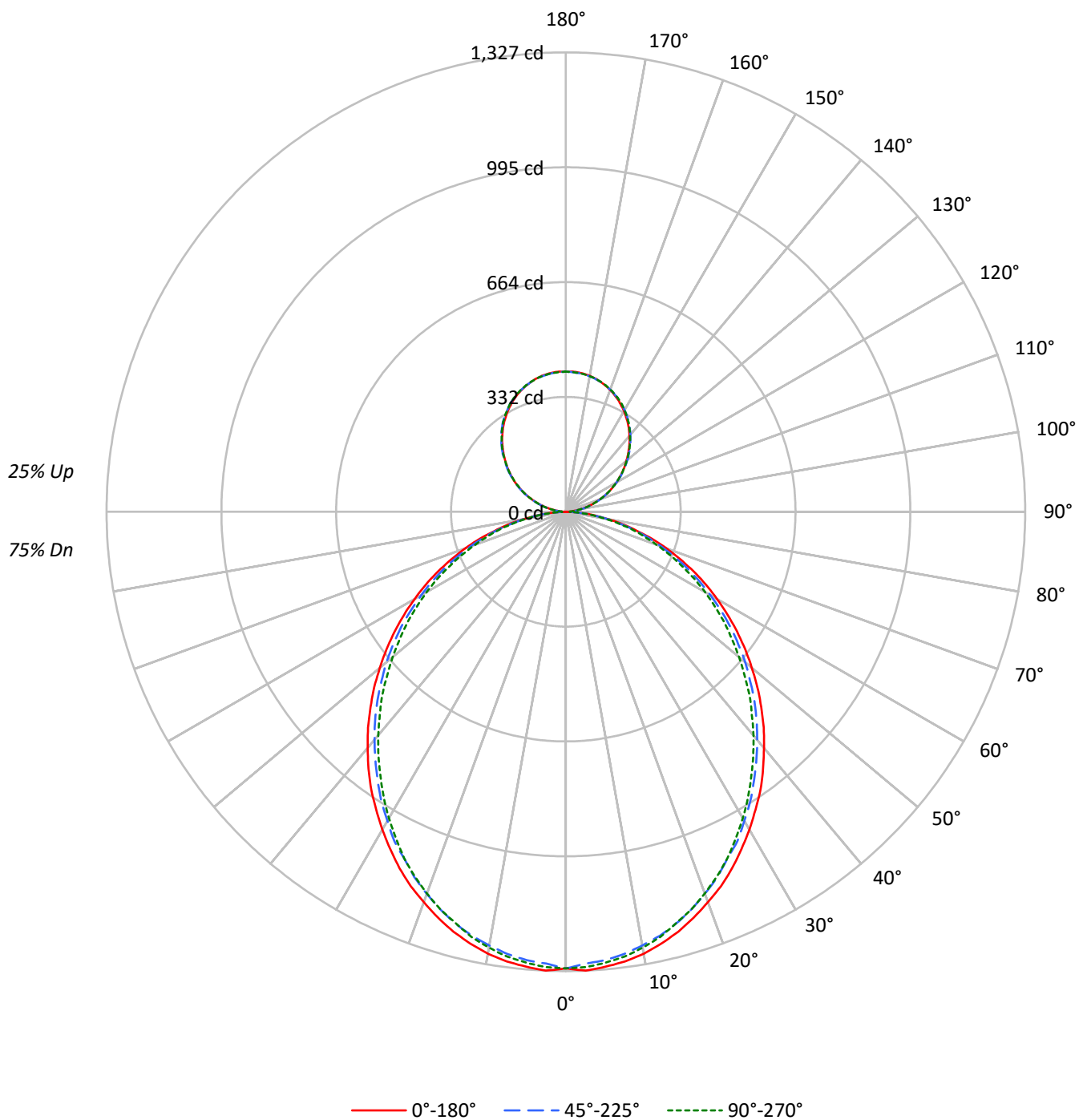
Lumens per Lamp: N/A
Luminaire Lumens: 4489.0 lumens
Efficiency: N/A
Efficacy: 80.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 56.1
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	107	107	107	107	97	97	97	88	88	88	79	79	79
1	103	99	95	91	98	94	91	87	85	83	80	77	75	73	70	68	67
2	94	86	80	75	89	82	77	72	75	70	66	68	64	61	61	59	56
3	86	76	68	62	81	73	66	60	66	60	56	60	56	52	54	51	48
4	79	67	59	53	75	64	57	51	59	53	48	54	49	44	49	45	41
5	72	60	52	45	69	58	50	44	53	46	41	48	43	39	44	40	36
6	67	54	46	40	63	52	44	39	48	41	36	44	38	34	40	35	32
7	62	49	41	35	59	47	39	34	43	37	32	40	34	30	36	32	28
8	58	45	37	31	55	43	35	30	40	33	29	36	31	27	34	29	25
9	54	41	33	28	51	39	32	27	36	30	26	34	28	24	31	26	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°	20880	20880	20880
5°	20914	19903	19762
10°	20745	18996	18619
15°	20441	18082	17417
20°	20030	17088	16278
25°	19621	16049	15141
30°	19106	15074	13949
35°	18619	14045	12776
40°	18021	13030	11670
45°	17424	12022	10584
50°	16773	10997	9456
55°	16086	9900	8388
60°	15318	8714	7279
65°	14472	7509	6113
70°	13404	6188	4936
75°	11921	4770	3811
80°	10123	3241	2453
85°	7345	1509	1044

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 17424 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.1	2.8
10°-20°	349.3	7.8
20°-30°	513.3	11.4
30°-40°	596.2	13.3
40°-50°	595.5	13.3
50°-60°	519.2	11.6
60°-70°	383.8	8.6
70°-80°	217.2	4.8
80°-90°	58.5	1.3
90°-100°	25.0	0.6
100°-110°	79.6	1.8
110°-120°	136.2	3.0
120°-130°	179.2	4.0
130°-140°	201.1	4.5
140°-150°	197.2	4.4
150°-160°	165.4	3.7
160°-170°	109.7	2.4
170°-180°	38.3	0.9
0°-30°	986.8	22.0
0°-40°	1583.0	35.3
0°-60°	2697.7	60.1
0°-90°	3357.1	74.8
90°-120°	240.9	5.4
90°-150°	818.4	18.2
90°-180°	1132.0	25.2
0°-180°	4489.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1319	1319	1319	1319	1319	
5°	1319	1314	1300	1310	1308	125
15°	1256	1248	1232	1237	1230	354
25°	1136	1126	1105	1107	1105	523
35°	980	968	948	940	934	612
45°	798	789	770	756	751	616
55°	604	596	581	566	559	540
65°	407	400	387	375	369	403
75°	213	210	204	197	199	227
85°	52	51	50	46	44	58
90°	0	4	12	11	12	4
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	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1319.1	1319.1	1319.1	1319.1	1319.1
2.5°	1326.7	1320.4	1306.4	1319.1	1316.6
5°	1319.1	1314.0	1300.1	1310.2	1307.7
7.5°	1310.2	1302.6	1288.7	1298.8	1296.3
10°	1296.3	1287.4	1272.2	1282.3	1278.5
12.5°	1277.2	1269.6	1254.4	1260.8	1258.2
15°	1255.7	1248.1	1231.6	1236.7	1230.3
17.5°	1229.0	1221.4	1204.9	1211.3	1204.9
20°	1199.9	1192.3	1174.5	1178.3	1173.2
22.5°	1170.7	1159.3	1142.8	1142.8	1140.3
25°	1136.5	1126.3	1104.7	1107.3	1104.7
27.5°	1098.4	1089.5	1073.0	1069.2	1062.9
30°	1060.4	1050.2	1031.2	1027.4	1022.3
32.5°	1019.8	1012.2	991.9	984.3	979.2
35°	980.4	967.8	947.5	939.9	933.5
37.5°	936.1	924.6	904.3	895.5	889.1
40°	890.4	880.2	860.0	848.5	843.5
42.5°	846.0	835.9	815.6	802.9	795.3
45°	797.8	788.9	769.9	755.9	750.9
47.5°	750.9	742.0	721.7	707.7	700.1
50°	701.4	695.1	677.3	659.5	653.2
52.5°	653.2	644.3	627.8	613.9	605.0
55°	603.7	596.1	580.9	565.7	559.3
57.5°	554.3	547.9	531.4	516.2	511.2
60°	504.8	499.7	482.0	468.0	464.2
62.5°	456.6	447.7	435.0	422.4	417.3
65°	407.1	399.5	386.9	375.4	369.1
67.5°	356.4	350.1	338.7	329.8	324.7
70°	309.5	304.4	293.0	284.1	279.0
72.5°	261.3	256.2	249.9	241.0	237.2
75°	213.1	210.5	204.2	196.6	199.1
77.5°	170.0	164.9	162.4	158.5	154.7
80°	126.8	125.6	123.0	119.2	116.7
82.5°	86.2	86.2	85.0	79.9	79.9
85°	52.0	50.7	49.5	45.7	44.4
87.5°	22.8	20.3	17.8	14.0	12.7
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



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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	17.82	18.96	18.53	19.69	20.56	18.61	19.74	19.32	20.48	21.34
	3H	19.18	20.21	19.91	20.95	21.84	20.25	21.28	20.98	22.02	22.92
	4H	19.60	20.56	20.34	21.32	22.23	20.86	21.82	21.60	22.57	23.48
	6H	19.83	20.72	20.59	21.48	22.41	21.27	22.17	22.03	22.93	23.85
	8H	19.87	20.72	20.64	21.50	22.43	21.39	22.24	22.16	23.02	23.95
	12H	19.87	20.68	20.64	21.46	22.41	21.44	22.26	22.22	23.03	23.98
4H	2H	18.33	19.29	19.07	20.04	20.95	18.97	19.94	19.71	20.69	21.60
	3H	19.87	20.67	20.63	21.46	22.39	20.77	21.58	21.53	22.37	23.30
	4H	20.38	21.12	21.16	21.90	22.86	21.47	22.20	22.24	22.99	23.94
	6H	20.70	21.34	21.49	22.15	23.11	21.98	22.61	22.77	23.42	24.39
	8H	20.77	21.36	21.56	22.17	23.14	22.13	22.72	22.92	23.53	24.51
	12H	20.78	21.31	21.60	22.14	23.13	22.20	22.74	23.02	23.57	24.55
8H	4H	20.58	21.18	21.38	21.98	22.96	21.57	22.17	22.37	22.98	23.95
	6H	20.98	21.47	21.80	22.32	23.30	22.15	22.65	22.98	23.50	24.47
	8H	21.08	21.52	21.92	22.37	23.36	22.35	22.78	23.18	23.63	24.62
	12H	21.13	21.51	21.97	22.35	23.40	22.46	22.84	23.30	23.68	24.73
12H	4H	20.58	21.11	21.39	21.94	22.92	21.55	22.09	22.37	22.92	23.90
	6H	21.00	21.44	21.83	22.28	23.28	22.15	22.59	22.98	23.43	24.43
	8H	21.12	21.51	21.96	22.35	23.40	22.36	22.74	23.20	23.58	24.63