

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: P999084

Luminaire Tested: SA2XXDIP-B865D330UB50-4F0-XX-W2A-D1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P999084
REPORT IS A COMBINATION OF REPORTS P984833 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-D1
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

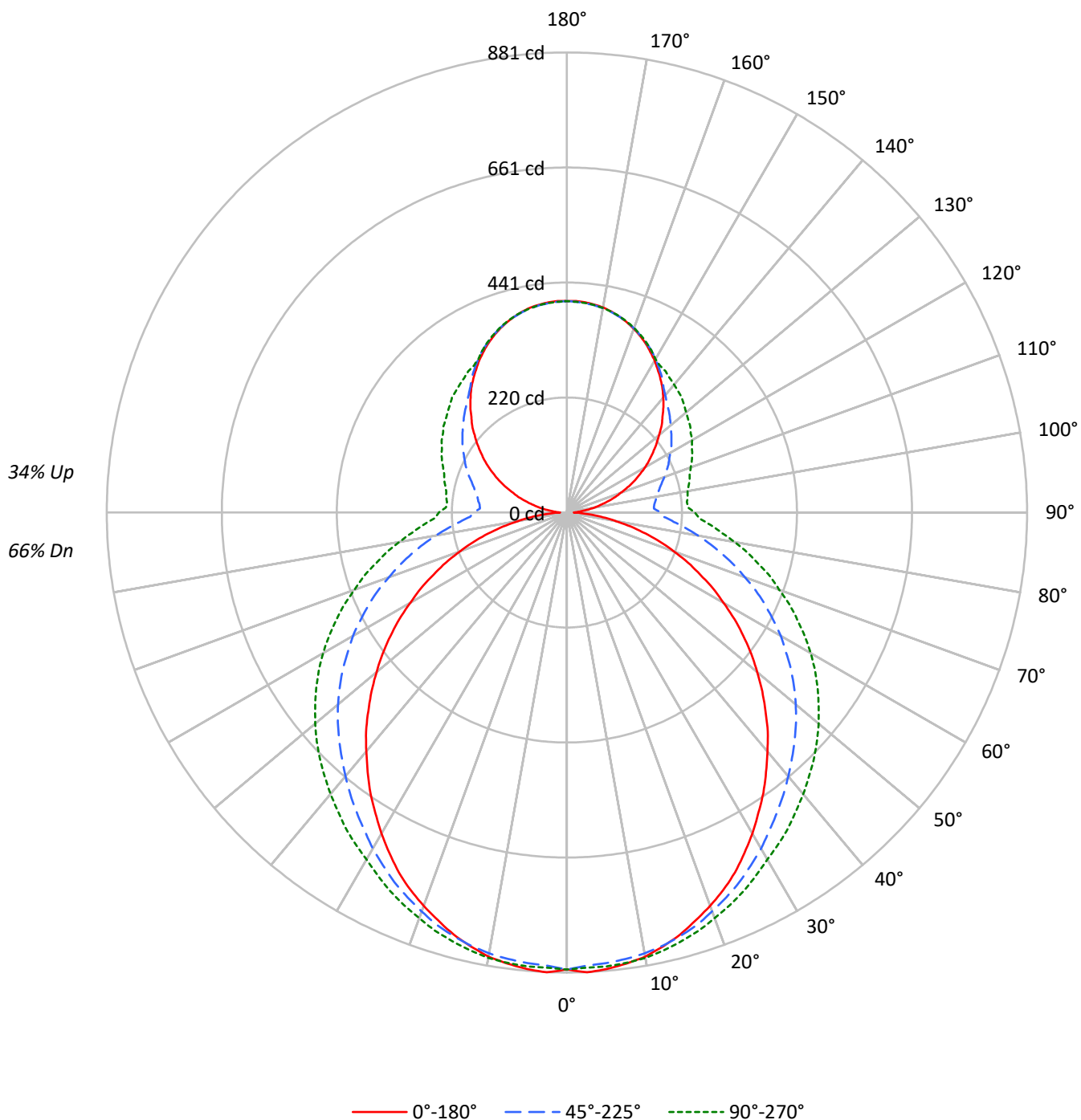
Lumens per Lamp: N/A
Luminaire Lumens: 4472.0 lumens
Efficiency: N/A
Efficacy: 79.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

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	111	111	111	111	105	105	105	105	92	92	92	81	81	81	71	71	71
1	99	94	89	85	93	89	84	81	78	75	72	69	66	64	60	58	56
2	90	81	74	68	84	76	70	65	67	62	58	59	55	52	51	48	46
3	81	71	62	56	76	67	59	53	59	53	48	52	47	43	45	41	38
4	74	62	53	47	69	59	51	45	52	45	40	46	40	36	40	36	32
5	68	55	46	40	64	52	44	38	46	40	35	41	35	31	36	31	28
6	63	49	41	34	59	47	39	33	42	35	30	37	31	27	32	28	24
7	58	45	36	30	54	42	34	29	38	31	26	33	28	24	29	25	21
8	54	41	32	26	50	38	31	25	34	28	23	31	25	21	27	22	19
9	50	37	29	24	47	35	28	23	31	25	21	28	23	19	25	20	17
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13852	13852	13852
5°	13914	13261	13185
10°	13822	12801	12614
15°	13625	12327	12029
20°	13380	11827	11473
25°	13136	11349	10969
30°	12796	10864	10469
35°	12453	10396	10102
40°	12089	9992	9738
45°	11743	9625	9421
50°	11373	9287	9106
55°	10984	8927	8787
60°	10505	8554	8452
65°	10007	8122	8066
70°	9445	7660	7651
75°	8727	7199	7258
80°	7593	6717	6851
85°	6455	6266	6502

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11743 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.0	1.9
10°-20°	237.9	5.3
20°-30°	360.5	8.1
30°-40°	439.0	9.8
40°-50°	472.3	10.6
50°-60°	458.7	10.3
60°-70°	400.6	9.0
70°-80°	308.3	6.9
80°-90°	207.7	4.6
90°-100°	167.5	3.7
100°-110°	183.7	4.1
110°-120°	204.9	4.6
120°-130°	217.4	4.9
130°-140°	217.2	4.9
140°-150°	199.9	4.5
150°-160°	165.4	3.7
160°-170°	109.7	2.5
170°-180°	38.3	0.9
0°-30°	681.4	15.2
0°-40°	1120.4	25.1
0°-60°	2051.4	45.9
0°-90°	2967.9	66.4
90°-120°	556.1	12.4
90°-150°	1190.6	26.6
90°-180°	1504.0	33.6
0°-180°	4472.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	875	875	875	875	875	
5°	878	874	866	874	872	83
15°	837	840	840	851	850	236
25°	761	770	781	796	800	350
35°	656	677	701	729	738	410
45°	538	572	616	656	668	415
55°	412	458	524	569	586	369
65°	282	344	418	470	487	280
75°	156	227	308	363	379	165
85°	46	124	206	259	276	48
90°	13	91	179	229	245	10
95°	28	91	168	216	230	28
105°	80	118	184	229	243	85
115°	142	158	214	252	265	140
125°	201	204	244	277	288	180
135°	259	262	276	302	311	200
145°	312	315	317	325	330	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°	875.1	875.1	875.1	875.1	875.1
2.5°	881.4	877.6	868.7	875.1	872.5
5°	877.6	873.8	866.2	873.8	872.5
7.5°	871.3	868.7	862.4	871.3	870.0
10°	863.7	861.1	857.3	867.5	866.2
12.5°	851.0	852.3	849.7	859.9	858.6
15°	837.0	839.6	839.6	851.0	849.7
17.5°	819.3	824.4	828.2	839.6	839.6
20°	801.5	807.9	812.9	826.9	826.9
22.5°	782.5	790.1	797.7	811.7	814.2
25°	760.9	769.8	781.2	796.5	800.3
27.5°	735.6	749.5	762.2	781.2	783.8
30°	710.2	726.7	743.2	763.5	767.3
32.5°	682.3	701.3	721.6	745.7	753.3
35°	655.7	677.2	701.3	729.2	738.1
37.5°	626.5	650.6	681.0	711.5	720.4
40°	597.3	625.2	659.5	692.5	703.9
42.5°	569.4	597.3	637.9	674.7	686.1
45°	537.7	572.0	616.4	655.7	668.4
47.5°	507.3	544.1	594.8	635.4	649.3
50°	475.6	514.9	572.0	615.1	629.0
52.5°	445.1	487.0	547.9	592.3	607.5
55°	412.2	457.8	523.8	569.4	585.9
57.5°	380.5	431.2	497.1	546.6	563.1
60°	346.2	400.8	473.1	521.2	539.0
62.5°	315.8	372.9	445.1	497.1	513.6
65°	281.5	343.7	418.5	470.5	487.0
67.5°	251.1	315.8	391.9	443.9	461.6
70°	218.1	284.1	362.7	417.2	432.5
72.5°	187.7	256.2	336.1	389.3	408.4
75°	156.0	227.0	308.2	362.7	379.2
77.5°	125.6	199.1	281.5	336.1	353.8
80°	95.1	172.5	254.9	308.2	325.9
82.5°	69.8	145.8	229.6	282.8	299.3
85°	45.7	124.3	205.5	258.7	276.5
87.5°	27.9	104.0	185.2	237.2	253.6
90°	13.0	90.6	179.4	229.4	245.0
92.5°	18.9	88.8	166.6	216.4	231.6
95°	27.9	91.0	167.7	215.9	230.5
97.5°	38.6	96.2	171.2	218.1	233.3
100°	52.3	101.9	173.9	220.8	234.5
102.5°	65.3	109.3	179.1	225.1	238.8
105°	79.8	117.6	184.3	229.3	243.2
107.5°	95.5	127.3	190.7	234.2	246.5
110°	109.3	136.6	198.8	239.4	252.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	125.7	148.0	206.0	245.6	258.8
115°	141.8	157.7	214.1	251.8	264.8
117.5°	156.5	169.4	220.9	258.0	269.6
120°	172.6	180.4	228.4	263.9	276.8
122.5°	187.3	192.0	237.2	270.3	281.2
125°	201.3	204.4	244.0	277.3	288.3
127.5°	216.4	218.9	251.8	282.1	292.5
130°	230.4	233.6	259.5	289.2	298.1
132.5°	246.1	248.3	267.6	295.1	304.2
135°	258.6	262.3	275.7	302.0	311.0
137.5°	273.6	276.7	283.6	307.4	314.9
140°	286.9	288.7	292.9	313.2	319.4
142.5°	300.6	302.3	303.4	318.9	323.9
145°	312.3	314.6	316.7	324.6	329.7
147.5°	323.9	326.9	328.3	330.3	332.7
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	15.70	16.80	16.49	17.62	18.64	18.77	19.88	19.56	20.70	21.71
	3H	17.17	18.18	17.98	19.01	20.05	21.38	22.38	22.18	23.21	24.25
	4H	17.66	18.61	18.48	19.45	20.50	22.64	23.59	23.46	24.43	25.48
	6H	17.95	18.84	18.79	19.69	20.75	23.95	24.83	24.78	25.68	26.74
	8H	18.02	18.87	18.86	19.73	20.80	24.61	25.46	25.45	26.33	27.39
	12H	18.04	18.85	18.89	19.71	20.81	25.35	26.16	26.19	27.02	28.11
4H	2H	16.77	17.73	17.60	18.57	19.61	19.13	20.08	19.95	20.92	21.97
	3H	18.50	19.31	19.33	20.18	21.25	21.94	22.75	22.77	23.62	24.69
	4H	19.13	19.88	19.98	20.74	21.84	23.36	24.11	24.21	24.98	26.07
	6H	19.56	20.21	20.42	21.11	22.20	24.84	25.50	25.70	26.39	27.48
	8H	19.67	20.29	20.54	21.18	22.29	25.61	26.22	26.47	27.11	28.22
	12H	19.73	20.29	20.62	21.20	22.31	26.45	27.01	27.33	27.91	29.03
8H	4H	19.94	20.55	20.80	21.44	22.55	23.53	24.14	24.39	25.03	26.14
	6H	20.58	21.10	21.47	22.03	23.14	25.16	25.68	26.06	26.61	27.72
	8H	20.81	21.27	21.71	22.19	23.32	26.06	26.52	26.96	27.44	28.57
	12H	20.95	21.37	21.86	22.28	23.46	27.06	27.48	27.97	28.39	29.57
12H	4H	20.15	20.71	21.04	21.62	22.73	23.51	24.07	24.40	24.98	26.09
	6H	20.92	21.39	21.82	22.31	23.43	25.19	25.66	26.09	26.58	27.70
	8H	21.23	21.65	22.14	22.56	23.74	26.13	26.55	27.04	27.46	28.64