

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: P999083

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

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P999083
REPORT IS A COMBINATION OF REPORTS P984832 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-D
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

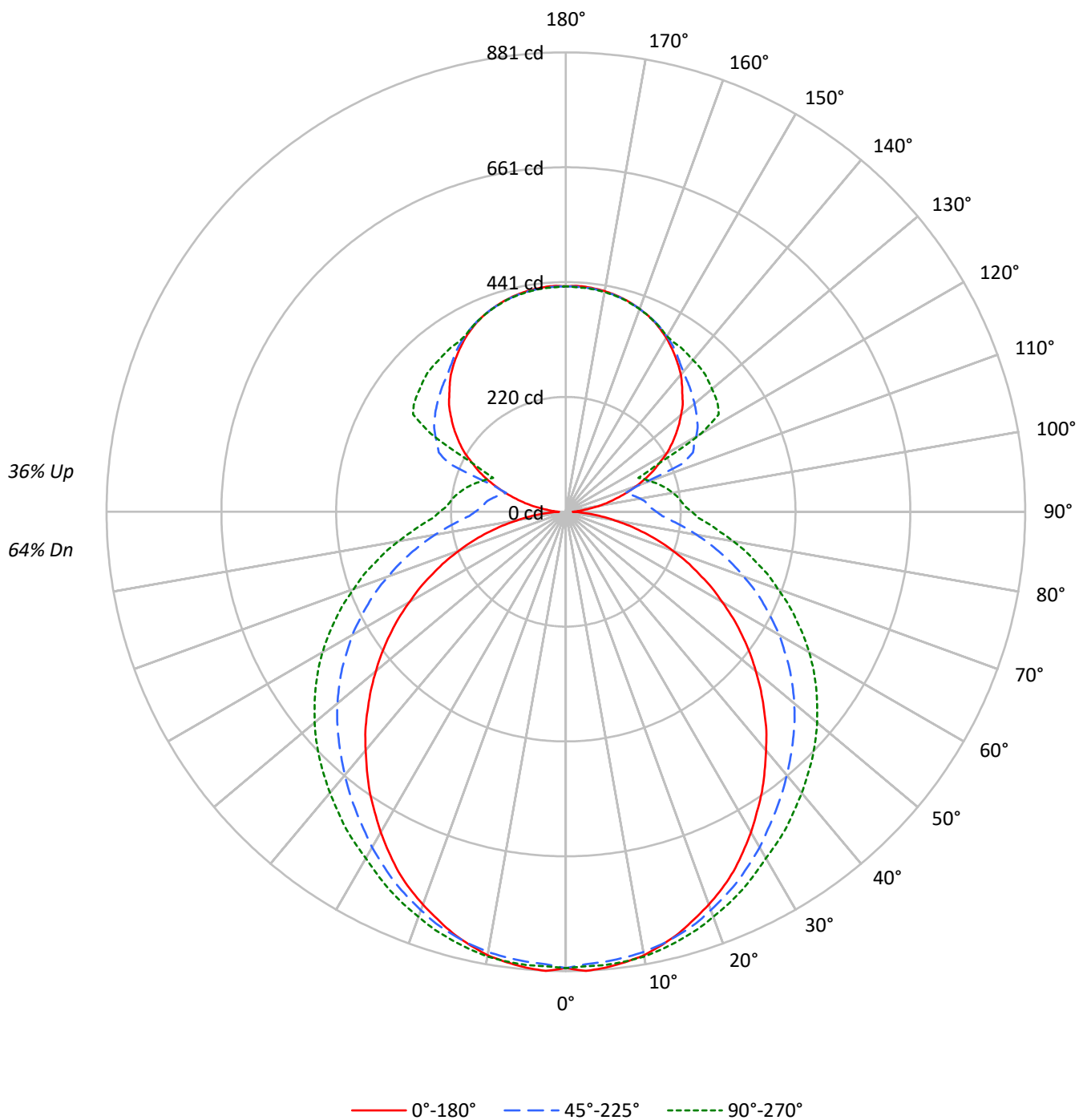
Lumens per Lamp: N/A
Luminaire Lumens: 4607.0 lumens
Efficiency: N/A
Efficacy: 82.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

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	104	104	104	104	91	91	91	80	80	80	69	69	69
1	99	94	89	85	93	88	84	80	77	74	71	67	65	63	58	56	55
2	89	81	74	68	83	76	70	64	67	62	57	58	54	51	50	47	45
3	81	70	62	56	76	66	59	53	58	52	47	51	46	42	44	40	37
4	74	62	53	47	69	58	50	44	51	45	40	45	40	36	39	35	32
5	68	55	46	40	63	52	44	38	46	39	34	40	35	31	35	31	27
6	62	49	41	34	58	46	38	33	41	35	30	36	31	27	31	27	24
7	58	44	36	30	54	42	34	29	37	31	26	33	27	23	29	24	21
8	54	40	32	26	50	38	31	25	34	28	23	30	25	21	26	22	19
9	50	37	29	23	47	35	28	23	31	25	21	28	22	19	24	20	17
10	47	34	26	21	44	32	25	20	29	23	19	25	20	17	22	18	15

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	1.8
10°-20°	237.9	5.2
20°-30°	360.5	7.8
30°-40°	439.0	9.5
40°-50°	472.3	10.3
50°-60°	458.7	10.0
60°-70°	400.6	8.7
70°-80°	308.3	6.7
80°-90°	207.3	4.5
90°-100°	156.7	3.4
100°-110°	157.2	3.4
110°-120°	209.6	4.5
120°-130°	272.0	5.9
130°-140°	264.3	5.7
140°-150°	233.5	5.1
150°-160°	185.5	4.0
160°-170°	119.5	2.6
170°-180°	41.1	0.9
0°-30°	681.4	14.8
0°-40°	1120.4	24.3
0°-60°	2051.4	44.5
0°-90°	2967.5	64.4
90°-120°	523.5	11.4
90°-150°	1293.3	28.1
90°-180°	1639.0	35.6
0°-180°	4607.0	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	90	174	226	242	10
95°	30	80	158	208	223	32
105°	101	148	128	176	191	109
115°	185	204	269	162	154	182
125°	257	261	307	344	356	230
135°	316	321	336	366	376	244
145°	365	365	370	380	385	229
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°	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	90.0	173.7	225.9	241.8
92.5°	19.2	85.2	163.5	213.6	229.1
95°	30.4	79.8	158.0	207.8	222.7
97.5°	45.5	74.3	153.0	200.8	216.3
100°	64.3	68.3	144.6	194.0	208.7
102.5°	83.6	124.9	136.4	185.5	200.4
105°	101.4	147.6	128.2	176.0	191.2
107.5°	123.6	161.9	119.9	166.4	181.7
110°	143.7	175.5	147.3	156.7	171.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	163.7	189.6	242.6	148.4	163.2
115°	184.9	204.2	269.1	162.3	153.7
117.5°	202.1	218.6	277.1	270.4	201.1
120°	222.7	232.5	288.9	328.1	299.9
122.5°	240.3	246.6	299.7	335.8	347.6
125°	256.8	260.9	307.4	343.9	356.2
127.5°	273.1	276.2	315.1	350.0	361.7
130°	288.4	292.2	322.2	356.1	366.0
132.5°	304.0	306.9	329.3	361.3	371.1
135°	316.0	321.0	336.5	366.2	375.7
137.5°	329.7	333.5	342.9	370.1	378.1
140°	343.2	344.4	350.3	373.4	379.5
142.5°	354.4	355.3	359.4	377.1	381.9
145°	365.0	364.7	370.0	379.8	384.6
147.5°	375.3	374.4	379.7	382.6	385.1
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	15.55	16.63	16.36	17.47	18.51	18.62	19.70	19.43	20.54	21.59
	3H	17.02	18.00	17.84	18.85	19.92	21.23	22.20	22.05	23.06	24.13
	4H	17.51	18.44	18.34	19.29	20.38	22.49	23.42	23.33	24.28	25.36
	6H	17.80	18.66	18.65	19.53	20.63	23.79	24.66	24.65	25.52	26.62
	8H	17.87	18.69	18.72	19.58	20.67	24.46	25.29	25.32	26.17	27.27
	12H	17.89	18.68	18.76	19.56	20.68	25.19	25.98	26.06	26.86	27.98
4H	2H	16.62	17.55	17.46	18.41	19.49	18.97	19.90	19.82	20.76	21.85
	3H	18.34	19.14	19.20	20.03	21.12	21.78	22.57	22.64	23.46	24.56
	4H	18.97	19.70	19.84	20.59	21.71	23.21	23.93	24.07	24.82	25.94
	6H	19.40	20.04	20.28	20.95	22.07	24.69	25.32	25.57	26.24	27.36
	8H	19.52	20.11	20.40	21.02	22.16	25.45	26.05	26.33	26.95	28.09
	12H	19.57	20.12	20.47	21.04	22.19	26.29	26.83	27.19	27.76	28.91
8H	4H	19.78	20.38	20.66	21.29	22.43	23.37	23.97	24.25	24.87	26.01
	6H	20.42	20.93	21.33	21.88	23.01	25.01	25.51	25.92	26.46	27.60
	8H	20.65	21.10	21.57	22.04	23.19	25.90	26.35	26.82	27.29	28.45
	12H	20.79	21.20	21.72	22.13	23.33	26.90	27.31	27.83	28.24	29.44
12H	4H	19.99	20.54	20.90	21.46	22.61	23.35	23.90	24.26	24.82	25.97
	6H	20.76	21.21	21.68	22.15	23.31	25.03	25.49	25.95	26.43	27.58
	8H	21.07	21.48	22.00	22.41	23.61	25.97	26.38	26.90	27.31	28.51