

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: P999088

Luminaire Tested: SA2XXDIP-B865D330UB50-4F0-XX-W2A-F4

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P999088
REPORT IS A COMBINATION OF REPORTS P984837 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-F4
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

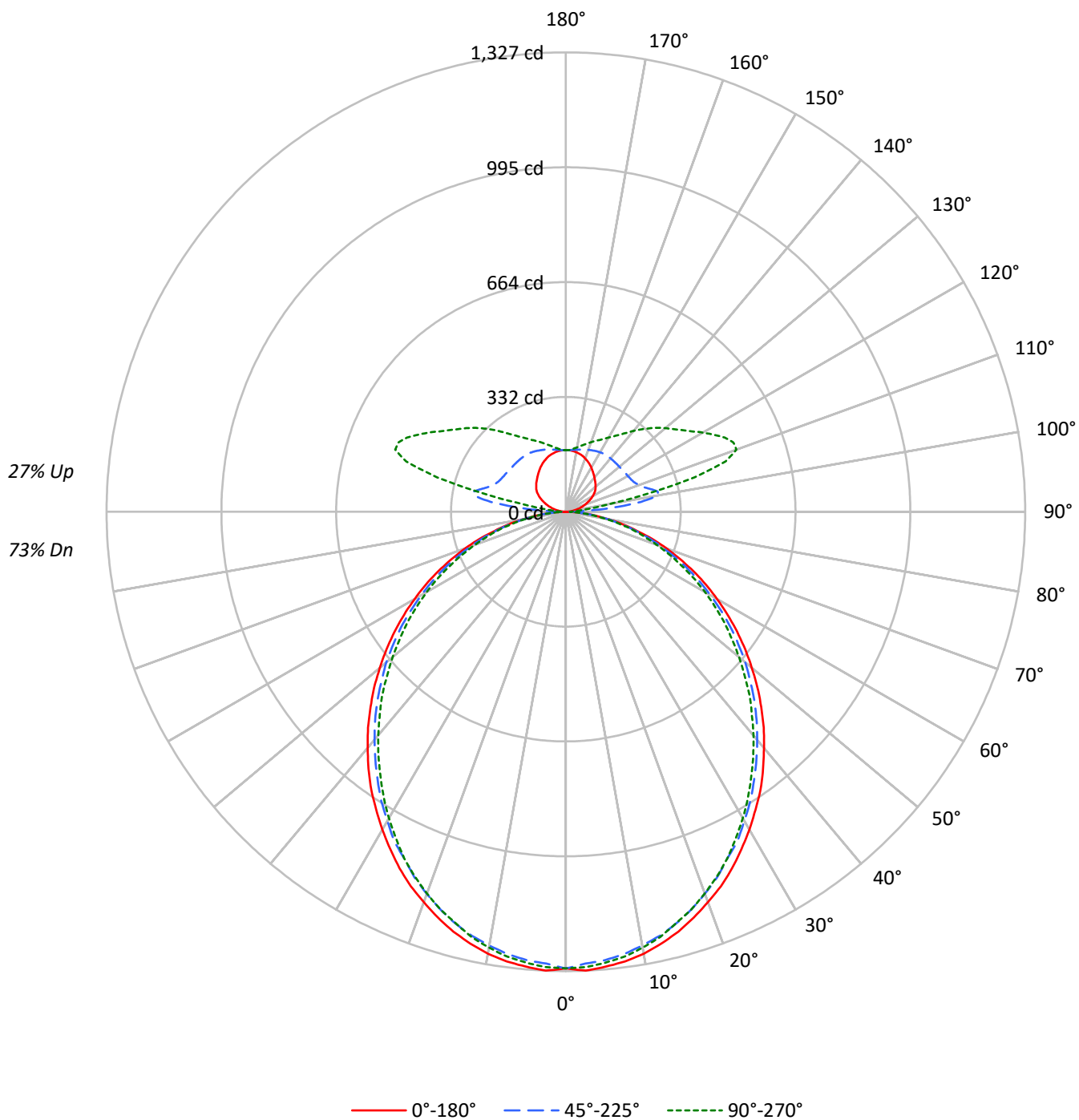
Lumens per Lamp: N/A
Luminaire Lumens: 4596.4 lumens
Efficiency: N/A
Efficacy: 81.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

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	96	96	96	86	86	86	77	77	77
1	103	98	94	91	98	94	90	87	84	82	79	76	74	72	68	67	65
2	94	86	80	74	89	82	76	71	74	70	66	67	63	60	60	57	55
3	86	76	68	62	81	72	65	60	65	60	55	59	55	51	53	50	47
4	78	67	59	53	74	64	57	51	58	52	47	53	48	44	48	44	40
5	72	60	52	45	68	57	50	44	52	46	41	47	42	38	43	39	35
6	67	54	46	39	63	52	44	38	47	41	36	43	38	33	39	35	31
7	62	49	41	35	58	47	39	34	43	36	32	39	34	30	36	31	28
8	57	45	36	31	54	43	35	30	39	33	28	36	31	27	33	28	25
9	54	41	33	28	51	39	32	27	36	30	25	33	28	24	30	26	23
10	50	38	30	25	48	36	29	24	33	27	23	31	25	22	28	24	20

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	2.7
10°-20°	349.3	7.6
20°-30°	513.3	11.2
30°-40°	596.2	13.0
40°-50°	595.5	13.0
50°-60°	519.2	11.3
60°-70°	383.8	8.4
70°-80°	217.2	4.7
80°-90°	58.4	1.3
90°-100°	72.1	1.6
100°-110°	243.6	5.3
110°-120°	256.1	5.6
120°-130°	210.5	4.6
130°-140°	169.2	3.7
140°-150°	127.8	2.8
150°-160°	89.9	2.0
160°-170°	52.9	1.2
170°-180°	17.2	0.4
0°-30°	986.8	21.5
0°-40°	1583.0	34.4
0°-60°	2697.7	58.7
0°-90°	3357.1	73.0
90°-120°	571.7	12.4
90°-150°	1079.3	23.5
90°-180°	1239.0	27.0
0°-180°	4596.4	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	5	12	11	11	4
95°	12	29	134	51	39	12
105°	42	63	253	453	385	44
115°	74	93	212	437	507	73
125°	102	121	204	354	411	91
135°	120	144	201	298	341	93
145°	137	158	200	249	272	86
155°	156	169	194	220	229	72
165°	170	175	186	198	201	48
175°	177	178	179	181	181	17
180°	178	178	178	178	178	

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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	4.6	11.6	11.1	11.3
92.5°	5.1	16.2	52.6	24.2	20.9
95°	12.0	29.4	134.0	50.6	39.0
97.5°	17.8	38.8	218.4	101.6	65.3
100°	26.3	47.5	270.0	202.2	122.4
102.5°	34.2	55.4	271.8	341.8	238.6
105°	41.7	62.9	253.3	452.8	385.2
107.5°	49.9	70.4	236.2	493.0	484.0
110°	58.1	78.2	224.6	486.4	524.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	65.6	85.4	217.1	464.4	523.7
115°	73.5	92.8	211.9	437.4	506.9
117.5°	81.7	100.2	209.2	411.6	481.6
120°	89.2	107.3	206.8	388.4	457.4
122.5°	96.4	114.6	205.4	370.5	432.1
125°	102.5	121.4	203.7	354.3	411.2
127.5°	107.7	127.6	202.7	340.4	391.7
130°	112.1	133.3	202.0	326.4	375.7
132.5°	116.2	138.8	201.7	311.9	358.9
135°	120.3	143.6	201.3	297.8	340.8
137.5°	124.1	147.6	201.3	283.4	323.4
140°	128.5	151.4	201.0	270.7	305.3
142.5°	133.0	154.5	201.0	258.6	287.1
145°	137.4	158.0	200.3	248.6	272.1
147.5°	142.2	160.6	199.3	240.0	258.8
150°	147.0	163.4	198.3	232.4	247.1
152.5°	151.8	166.2	196.6	226.2	237.2
155°	156.2	168.7	194.5	220.0	228.7
157.5°	160.0	170.8	192.4	214.2	221.2
160°	163.7	172.8	190.4	208.3	214.0
162.5°	167.5	174.4	188.7	202.8	207.1
165°	170.2	175.4	186.3	197.6	200.7
167.5°	172.6	176.4	184.2	192.8	194.5
170°	175.0	176.9	182.5	188.4	189.0
172.5°	176.4	177.4	180.5	184.4	184.6
175°	177.4	177.6	179.1	181.4	180.8
177.5°	178.1	177.8	177.8	179.1	178.1
180°	177.8	177.8	177.8	177.8	177.8

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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	17.69	18.81	18.42	19.56	20.46	18.48	19.59	19.21	20.34	21.24
	3H	19.05	20.05	19.79	20.81	21.74	20.12	21.12	20.86	21.88	22.81
	4H	19.47	20.41	20.23	21.18	22.12	20.72	21.67	21.48	22.44	23.38
	6H	19.70	20.57	20.47	21.35	22.31	21.14	22.01	21.91	22.79	23.75
	8H	19.73	20.57	20.52	21.37	22.32	21.25	22.09	22.04	22.89	23.84
	12H	19.73	20.53	20.53	21.32	22.31	21.31	22.10	22.10	22.89	23.88
4H	2H	18.19	19.14	18.96	19.91	20.85	18.84	19.78	19.60	20.55	21.49
	3H	19.73	20.52	20.51	21.33	22.29	20.64	21.43	21.42	22.23	23.19
	4H	20.25	20.97	21.04	21.77	22.76	21.33	22.05	22.12	22.85	23.84
	6H	20.56	21.19	21.38	22.02	23.01	21.84	22.46	22.65	23.29	24.29
	8H	20.63	21.21	21.44	22.04	23.04	21.99	22.57	22.80	23.40	24.40
	12H	20.64	21.16	21.47	22.01	23.02	22.06	22.59	22.90	23.43	24.45
8H	4H	20.44	21.03	21.26	21.85	22.86	21.44	22.02	22.25	22.84	23.85
	6H	20.84	21.32	21.68	22.19	23.20	22.01	22.50	22.86	23.37	24.37
	8H	20.94	21.37	21.80	22.24	23.26	22.21	22.63	23.06	23.50	24.52
	12H	20.99	21.36	21.84	22.22	23.30	22.32	22.69	23.17	23.55	24.63
12H	4H	20.44	20.96	21.27	21.81	22.82	21.41	21.94	22.25	22.78	23.79
	6H	20.86	21.29	21.71	22.15	23.18	22.01	22.44	22.86	23.30	24.33
	8H	20.98	21.36	21.84	22.22	23.30	22.22	22.59	23.07	23.45	24.53