

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: P999069

Luminaire Tested: SA2XXDIP-B865D330UB35-4F0-XX-W2A-F1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P999069
REPORT IS A COMBINATION OF REPORTS P984818 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B865D330UB35-4F0-XX-W2A-F1
Description: Define 2 Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

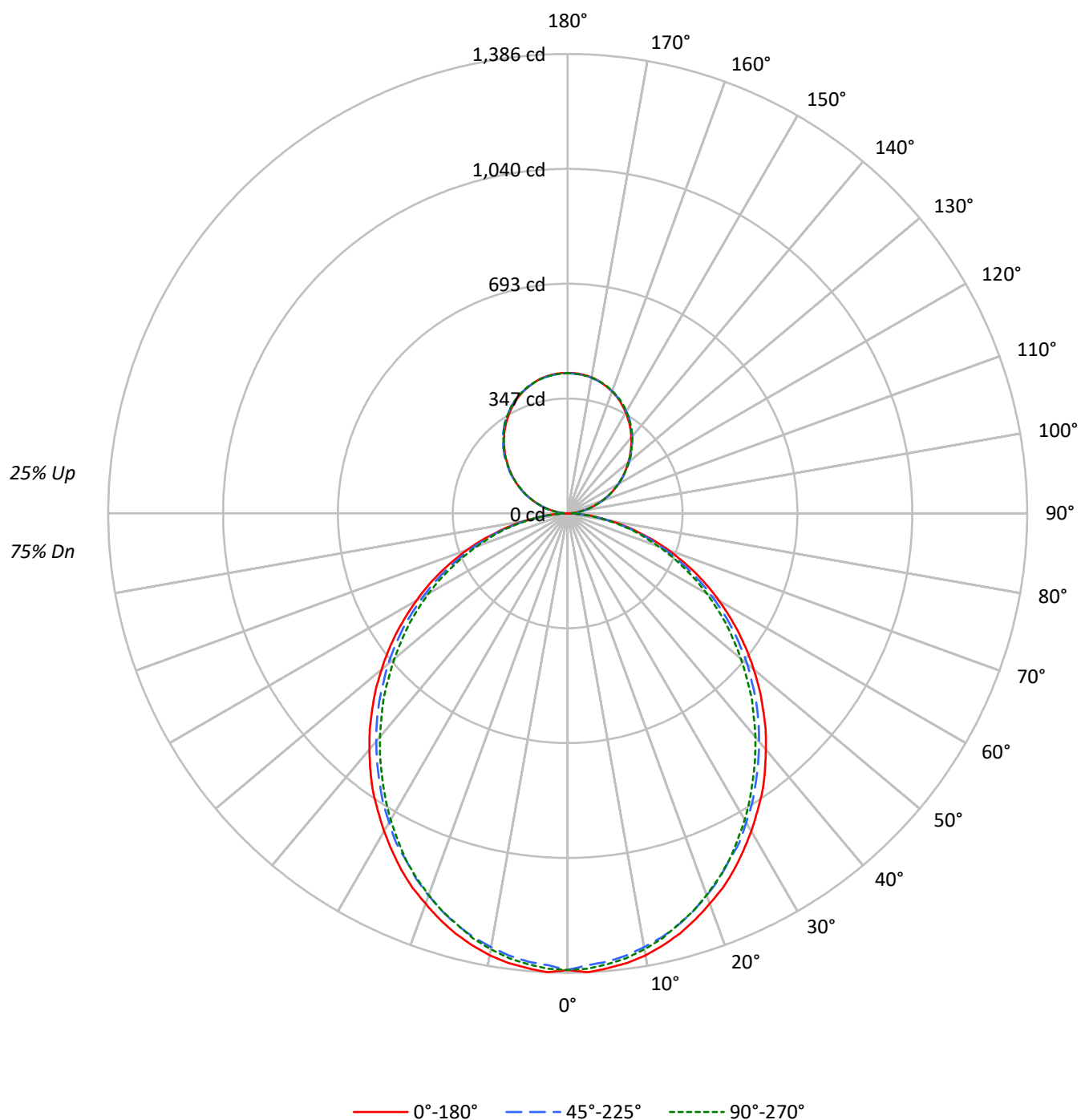
Lumens per Lamp: N/A
Luminaire Lumens: 4689.0 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

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	50	30	10
RCR																				
0	113	113	113	113	107	107	107	107	97	97	97	88	88	88	79	79	79	79	79	79
1	103	99	95	91	98	94	91	87	85	83	80	77	75	73	70	68	67	67	67	63
2	94	86	80	75	89	82	77	72	75	70	66	68	64	61	61	59	56	56	56	53
3	86	76	68	62	81	73	66	60	66	60	56	60	56	52	54	51	48	48	48	45
4	79	67	59	53	75	64	57	51	59	53	48	54	49	44	49	45	41	41	41	38
5	72	60	52	45	69	58	50	44	53	46	41	48	43	39	44	40	36	36	36	33
6	67	54	46	40	63	52	44	39	48	41	36	44	38	34	40	35	32	32	32	29
7	62	49	41	35	59	47	39	34	43	37	32	40	34	30	36	32	28	28	28	26
8	58	45	37	31	55	43	35	30	40	33	29	36	31	27	34	29	25	25	25	23
9	54	41	33	28	51	39	32	27	36	30	26	34	28	24	31	26	23	23	23	21
10	50	38	30	25	48	36	29	25	34	28	23	31	26	22	29	24	21	21	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21808	21808	21808
5°	21844	20787	20638
10°	21665	19840	19446
15°	21348	18885	18190
20°	20918	17847	17001
25°	20491	16763	15814
30°	19953	15744	14568
35°	19447	14668	13344
40°	18820	13607	12187
45°	18197	12556	11053
50°	17517	11485	9876
55°	16800	10340	8762
60°	15998	9101	7602
65°	15116	7841	6385
70°	13997	6463	5155
75°	12447	4982	3981
80°	10578	3386	2563
85°	7670	1576	1091

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 18197 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.7	2.8
10°-20°	364.8	7.8
20°-30°	536.1	11.4
30°-40°	622.7	13.3
40°-50°	621.9	13.3
50°-60°	542.3	11.6
60°-70°	400.8	8.5
70°-80°	226.8	4.8
80°-90°	61.1	1.3
90°-100°	26.2	0.6
100°-110°	83.2	1.8
110°-120°	142.4	3.0
120°-130°	187.2	4.0
130°-140°	210.2	4.5
140°-150°	206.1	4.4
150°-160°	172.9	3.7
160°-170°	114.7	2.4
170°-180°	40.1	0.9
0°-30°	1030.6	22.0
0°-40°	1653.3	35.3
0°-60°	2817.5	60.1
0°-90°	3506.2	74.8
90°-120°	251.7	5.4
90°-150°	855.2	18.2
90°-180°	1183.0	25.2
0°-180°	4689.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1378	1378	1378	1378	1378	
5°	1378	1372	1358	1368	1366	131
15°	1311	1304	1286	1292	1285	369
25°	1187	1176	1154	1156	1154	546
35°	1024	1011	990	982	975	639
45°	833	824	804	790	784	643
55°	630	623	607	591	584	564
65°	425	417	404	392	386	420
75°	222	220	213	205	208	237
85°	54	53	52	48	46	61
90°	0	5	12	12	12	4
95°	19	22	23	23	22	21
105°	77	78	78	79	79	81
115°	143	145	144	144	143	141
125°	208	211	210	209	208	186
135°	269	273	274	273	272	208
145°	326	329	331	331	330	204
155°	373	374	375	377	376	172
165°	406	406	406	408	406	115
175°	422	421	421	423	421	40
180°	423	423	423	423	423	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1377.7	1377.7	1377.7	1377.7	1377.7
2.5°	1385.6	1379.0	1364.4	1377.7	1375.0
5°	1377.7	1372.4	1357.8	1368.4	1365.7
7.5°	1368.4	1360.4	1345.9	1356.5	1353.8
10°	1353.8	1344.5	1328.7	1339.2	1335.3
12.5°	1334.0	1326.0	1310.1	1316.7	1314.1
15°	1311.4	1303.5	1286.3	1291.6	1284.9
17.5°	1283.6	1275.7	1258.4	1265.1	1258.4
20°	1253.1	1245.2	1226.7	1230.6	1225.3
22.5°	1222.7	1210.8	1193.5	1193.5	1190.9
25°	1186.9	1176.3	1153.8	1156.4	1153.8
27.5°	1147.2	1137.9	1120.7	1116.7	1110.1
30°	1107.4	1096.8	1077.0	1073.0	1067.7
32.5°	1065.0	1057.1	1035.9	1028.0	1022.7
35°	1024.0	1010.7	989.5	981.6	975.0
37.5°	977.6	965.7	944.5	935.2	928.6
40°	929.9	919.3	898.1	886.2	880.9
42.5°	883.6	873.0	851.8	838.5	830.6
45°	833.2	823.9	804.1	789.5	784.2
47.5°	784.2	774.9	753.7	739.2	731.2
50°	732.5	725.9	707.4	688.8	682.2
52.5°	682.2	672.9	655.7	641.1	631.9
55°	630.5	622.6	606.7	590.8	584.2
57.5°	578.9	572.3	555.0	539.1	533.8
60°	527.2	521.9	503.4	488.8	484.8
62.5°	476.9	467.6	454.4	441.1	435.8
65°	425.2	417.3	404.0	392.1	385.5
67.5°	372.2	365.6	353.7	344.4	339.1
70°	323.2	317.9	306.0	296.7	291.4
72.5°	272.9	267.6	261.0	251.7	247.7
75°	222.5	219.9	213.3	205.3	208.0
77.5°	177.5	172.2	169.6	165.6	161.6
80°	132.5	131.1	128.5	124.5	121.9
82.5°	90.1	90.1	88.8	83.5	83.5
85°	54.3	53.0	51.7	47.7	46.4
87.5°	23.8	21.2	18.5	14.6	13.2
90°	0.4	4.6	12.5	11.8	12.1
92.5°	7.9	10.7	11.1	11.4	11.4
95°	18.6	22.1	22.8	22.8	22.1
97.5°	31.1	34.3	35.7	35.7	35.7
100°	45.3	48.2	49.3	49.3	48.9
102.5°	60.3	62.5	63.9	64.3	63.9
105°	76.8	77.8	78.5	79.3	79.3
107.5°	93.2	94.6	94.6	95.0	93.2
110°	108.9	111.0	111.0	111.0	110.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	126.0	128.2	127.8	126.7	126.0
115°	142.8	144.9	144.2	143.9	142.8
117.5°	159.6	162.4	160.7	159.6	158.5
120°	176.4	179.2	176.4	176.4	175.3
122.5°	191.7	195.3	193.5	192.4	191.7
125°	207.8	211.0	209.9	208.9	208.5
127.5°	223.5	227.4	226.0	224.6	223.5
130°	238.1	242.8	242.1	241.3	239.9
132.5°	254.6	258.1	258.5	256.7	255.6
135°	268.8	272.8	273.5	273.1	272.0
137.5°	284.5	287.8	288.5	288.1	286.7
140°	298.5	301.7	303.5	303.5	302.0
142.5°	312.7	316.0	317.0	317.4	316.0
145°	326.3	328.8	331.0	331.3	329.9
147.5°	338.4	341.7	343.1	343.8	342.4
150°	350.9	353.1	354.5	355.6	354.5
152.5°	362.0	364.2	365.9	367.4	365.9
155°	373.1	374.1	375.2	377.0	375.9
157.5°	382.7	383.4	384.1	386.6	384.9
160°	391.3	392.0	392.4	394.5	393.1
162.5°	399.1	399.1	399.5	402.0	400.2
165°	405.9	405.6	405.6	408.1	406.3
167.5°	412.0	410.9	410.9	413.4	411.6
170°	416.6	415.6	415.2	417.7	415.6
172.5°	419.8	418.8	418.4	420.9	418.8
175°	422.3	421.3	420.6	423.1	420.9
177.5°	423.8	422.7	422.0	424.1	422.0
180°	423.1	423.1	423.1	423.1	423.1

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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	17.97	19.11	18.69	19.84	20.71	18.76	19.89	19.47	20.62	21.49
	3H	19.33	20.36	20.06	21.10	22.00	20.40	21.43	21.13	22.17	23.07
	4H	19.75	20.71	20.49	21.47	22.38	21.01	21.97	21.75	22.72	23.63
	6H	19.98	20.87	20.74	21.63	22.56	21.42	22.32	22.18	23.08	24.00
	8H	20.02	20.87	20.79	21.65	22.58	21.54	22.39	22.31	23.17	24.10
	12H	20.02	20.83	20.79	21.61	22.56	21.59	22.41	22.37	23.18	24.13
4H	2H	18.48	19.44	19.22	20.19	21.10	19.12	20.08	19.86	20.84	21.75
	3H	20.02	20.82	20.78	21.61	22.54	20.92	21.73	21.68	22.52	23.44
	4H	20.53	21.27	21.31	22.06	23.01	21.62	22.35	22.39	23.14	24.09
	6H	20.85	21.49	21.64	22.30	23.26	22.13	22.76	22.92	23.57	24.54
	8H	20.92	21.51	21.71	22.32	23.29	22.28	22.87	23.07	23.68	24.66
	12H	20.93	21.46	21.75	22.29	23.28	22.35	22.89	23.17	23.72	24.70
8H	4H	20.73	21.33	21.53	22.13	23.11	21.72	22.32	22.52	23.13	24.10
	6H	21.13	21.62	21.95	22.47	23.45	22.30	22.80	23.13	23.65	24.62
	8H	21.23	21.67	22.07	22.52	23.51	22.50	22.93	23.33	23.78	24.78
	12H	21.28	21.66	22.12	22.50	23.55	22.61	22.99	23.45	23.83	24.88
12H	4H	20.73	21.26	21.54	22.09	23.07	21.70	22.24	22.52	23.07	24.05
	6H	21.15	21.59	21.98	22.43	23.43	22.30	22.74	23.13	23.58	24.58
	8H	21.27	21.66	22.11	22.50	23.55	22.51	22.89	23.35	23.73	24.78