

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: P998971

Luminaire Tested: SA2XXDIP-B675D925UB50-4F0-XX-W2A-F4

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998971
REPORT IS A COMBINATION OF REPORTS P984717 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B675D925UB50-4F0-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

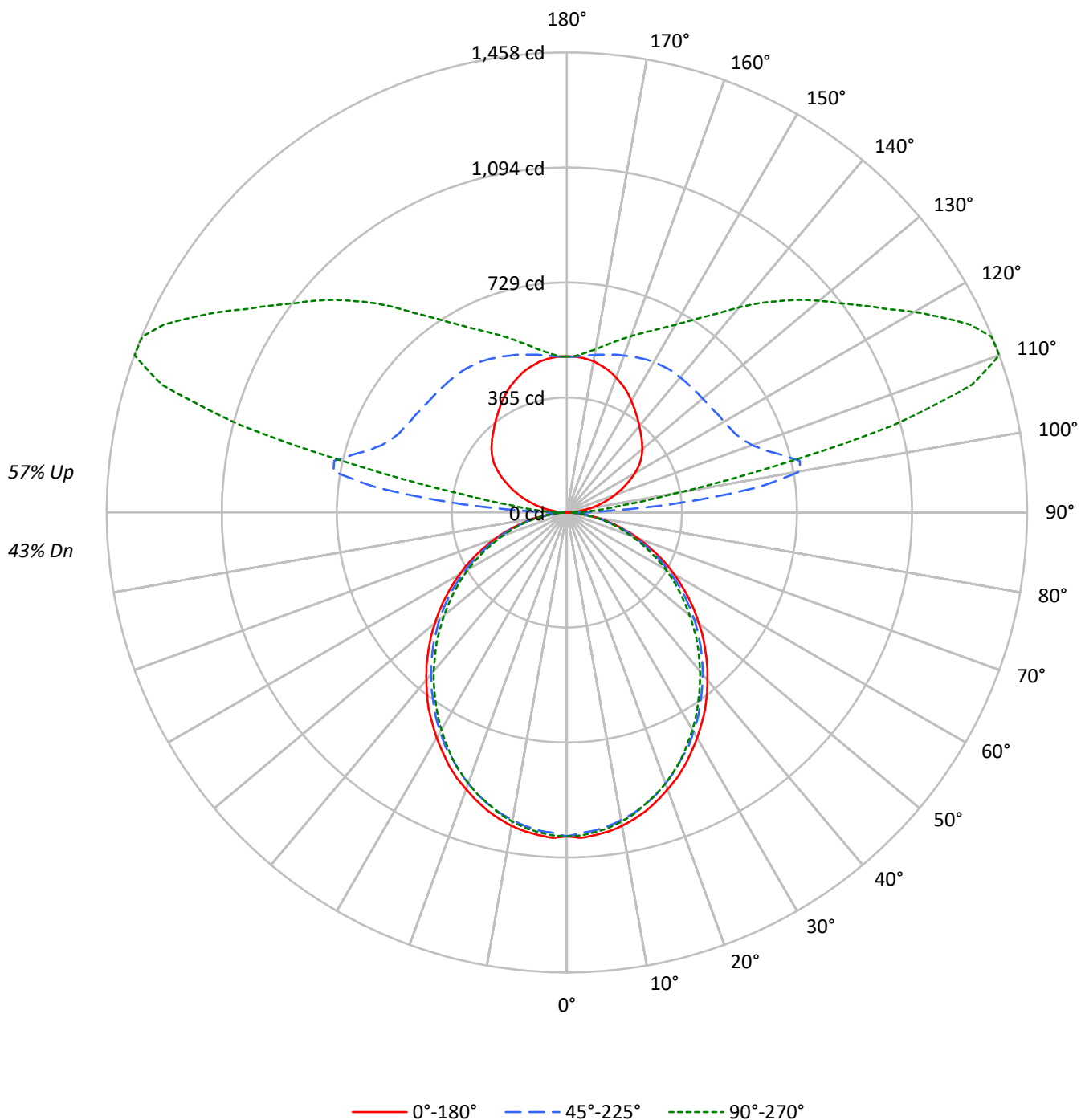
Lumens per Lamp: N/A
Luminaire Lumens: 6059.0 lumens
Efficiency: N/A
Efficacy: 94.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 64.4
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	106	106	106	106	96	96	96	96	80	80	80	64	64	64	50	50	50
1	96	92	88	85	88	84	81	78	70	67	65	56	55	53	44	43	42
2	88	80	74	69	80	74	68	64	61	57	54	49	47	44	39	37	35
3	80	71	63	58	73	65	58	53	54	49	45	44	40	38	34	32	30
4	73	62	55	49	67	57	51	45	48	43	39	39	35	32	31	28	26
5	67	56	48	42	61	51	44	39	43	37	33	35	31	28	28	25	23
6	62	50	42	36	56	46	39	34	38	33	29	32	28	24	25	22	20
7	57	45	37	32	52	41	34	30	35	29	26	29	25	22	23	20	18
8	53	41	33	28	48	38	31	26	32	26	23	26	22	19	21	18	16
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	19	16	14
10	46	34	27	22	42	32	25	21	27	22	18	22	18	16	18	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16246	16246	16246
5°	16272	15485	15375
10°	16139	14779	14486
15°	15903	14068	13550
20°	15583	13295	12665
25°	15265	12487	11780
30°	14865	11728	10853
35°	14487	10926	9941
40°	14020	10138	9078
45°	13556	9353	8234
50°	13050	8556	7357
55°	12516	7703	6527
60°	11916	6780	5664
65°	11262	5842	4757
70°	10428	4815	3841
75°	9275	3712	2965
80°	7880	2522	1909
85°	5721	1174	811

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 13556 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.6	1.6
10°-20°	271.8	4.5
20°-30°	399.4	6.6
30°-40°	463.9	7.7
40°-50°	463.3	7.6
50°-60°	404.0	6.7
60°-70°	298.6	4.9
70°-80°	169.0	2.8
80°-90°	47.8	0.8
90°-100°	200.3	3.3
100°-110°	677.1	11.2
110°-120°	711.8	11.7
120°-130°	585.3	9.7
130°-140°	470.3	7.8
140°-150°	355.3	5.9
150°-160°	249.8	4.1
160°-170°	147.1	2.4
170°-180°	47.8	0.8
0°-30°	767.7	12.7
0°-40°	1231.6	20.3
0°-60°	2098.9	34.6
0°-90°	2614.2	43.1
90°-120°	1589.2	26.2
90°-150°	3000.1	49.5
90°-180°	3445.0	56.9
0°-180°	6059.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1026	1026	1026	1026	1026	
5°	1026	1022	1012	1019	1017	97
15°	977	971	958	962	957	275
25°	884	876	860	862	860	407
35°	763	753	737	731	726	476
45°	621	614	599	588	584	479
55°	470	464	452	440	435	420
65°	317	311	301	292	287	313
75°	166	164	159	153	155	177
85°	40	40	38	36	34	45
90°	1	13	32	31	31	5
95°	33	82	372	141	108	34
105°	116	175	704	1258	1071	123
115°	204	258	589	1216	1409	203
125°	285	337	566	985	1143	253
135°	334	399	560	828	947	258
145°	382	439	557	691	756	240
155°	434	469	541	611	636	200
165°	473	487	518	549	558	133
175°	493	494	498	504	503	47
180°	494	494	494	494	494	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1026.3	1026.3	1026.3	1026.3	1026.3
2.5°	1032.2	1027.3	1016.4	1026.3	1024.3
5°	1026.3	1022.3	1011.5	1019.4	1017.4
7.5°	1019.4	1013.4	1002.6	1010.5	1008.5
10°	1008.5	1001.6	989.8	997.7	994.7
12.5°	993.7	987.8	975.9	980.9	978.9
15°	976.9	971.0	958.2	962.1	957.2
17.5°	956.2	950.3	937.5	942.4	937.5
20°	933.5	927.6	913.8	916.7	912.8
22.5°	910.8	901.9	889.1	889.1	887.1
25°	884.2	876.3	859.5	861.5	859.5
27.5°	854.6	847.7	834.8	831.9	826.9
30°	825.0	817.1	802.3	799.3	795.4
32.5°	793.4	787.5	771.7	765.8	761.8
35°	762.8	752.9	737.1	731.2	726.3
37.5°	728.3	719.4	703.6	696.7	691.7
40°	692.7	684.8	669.1	660.2	656.2
42.5°	658.2	650.3	634.5	624.6	618.7
45°	620.7	613.8	599.0	588.1	584.2
47.5°	584.2	577.3	561.5	550.6	544.7
50°	545.7	540.8	527.0	513.1	508.2
52.5°	508.2	501.3	488.5	477.6	470.7
55°	469.7	463.8	452.0	440.1	435.2
57.5°	431.2	426.3	413.5	401.6	397.7
60°	392.7	388.8	375.0	364.1	361.2
62.5°	355.2	348.3	338.5	328.6	324.7
65°	316.8	310.8	301.0	292.1	287.2
67.5°	277.3	272.4	263.5	256.6	252.6
70°	240.8	236.8	228.0	221.0	217.1
72.5°	203.3	199.3	194.4	187.5	184.5
75°	165.8	163.8	158.9	153.0	154.9
77.5°	132.2	128.3	126.3	123.3	120.4
80°	98.7	97.7	95.7	92.8	90.8
82.5°	67.1	67.1	66.1	62.2	62.2
85°	40.5	39.5	38.5	35.5	34.5
87.5°	17.8	15.8	13.8	10.9	9.9
90°	1.0	12.8	32.3	30.9	31.4
92.5°	14.3	45.2	146.3	67.5	58.0
95°	33.3	81.7	372.5	140.6	108.3
97.5°	49.4	107.8	607.2	282.2	181.5
100°	73.2	132.1	750.6	562.0	340.2
102.5°	95.0	153.9	755.4	950.2	663.2
105°	115.9	174.8	704.1	1258.5	1070.8
107.5°	138.7	195.7	656.6	1370.1	1345.4
110°	161.5	217.1	624.3	1352.0	1457.6

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	182.4	237.6	603.4	1290.8	1455.7
115°	204.3	258.0	589.1	1215.8	1409.1
117.5°	227.1	278.4	581.5	1144.0	1338.8
120°	248.0	298.4	574.8	1079.8	1271.3
122.5°	267.9	318.8	571.0	1030.0	1201.0
125°	285.0	337.3	566.3	984.8	1143.0
127.5°	299.3	354.9	563.4	946.4	1088.9
130°	311.7	370.6	561.5	907.4	1044.2
132.5°	323.1	385.8	560.6	867.0	997.7
135°	334.5	399.1	559.6	827.6	947.3
137.5°	344.9	410.4	559.6	787.6	898.9
140°	357.3	421.0	558.7	752.5	848.5
142.5°	369.6	429.5	558.7	718.8	798.1
145°	382.0	439.0	556.8	691.2	756.3
147.5°	395.3	446.6	553.9	667.0	719.3
150°	408.6	454.2	551.1	646.2	687.0
152.5°	421.9	461.8	546.3	628.6	659.4
155°	434.2	468.9	540.6	611.4	635.7
157.5°	444.7	474.6	534.9	595.3	614.8
160°	455.1	480.3	529.2	579.2	594.8
162.5°	465.6	484.6	524.5	563.9	575.8
165°	473.2	487.4	517.8	549.2	557.7
167.5°	479.8	490.3	512.1	535.9	540.6
170°	486.5	491.7	507.4	523.6	525.4
172.5°	490.3	493.2	501.7	512.6	513.1
175°	493.1	493.6	497.9	504.0	502.6
177.5°	495.0	494.1	494.1	497.9	495.0
180°	494.1	494.1	494.1	494.1	494.1

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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	14.25	15.05	15.27	16.08	17.44	15.03	15.84	16.05	16.86	18.23
	3H	15.59	16.30	16.61	17.34	18.72	16.66	17.37	17.68	18.41	19.79
	4H	15.99	16.67	17.02	17.70	19.10	17.24	17.93	18.28	18.96	20.35
	6H	16.20	16.83	17.25	17.87	19.28	17.64	18.27	18.69	19.31	20.72
	8H	16.23	16.83	17.28	17.88	19.29	17.75	18.35	18.80	19.40	20.81
	12H	16.22	16.79	17.28	17.84	19.26	17.79	18.36	18.85	19.41	20.84
4H	2H	14.71	15.40	15.76	16.43	17.82	15.36	16.04	16.40	17.07	18.47
	3H	16.23	16.79	17.28	17.86	19.26	17.13	17.70	18.18	18.76	20.17
	4H	16.73	17.25	17.79	18.30	19.73	17.81	18.33	18.87	19.39	20.82
	6H	17.03	17.48	18.10	18.55	19.98	18.30	18.75	19.37	19.83	21.25
	8H	17.08	17.50	18.15	18.57	20.01	18.45	18.86	19.51	19.93	21.37
	12H	17.08	17.46	18.17	18.54	19.99	18.50	18.88	19.59	19.97	21.41
8H	4H	16.90	17.32	17.97	18.39	19.83	17.89	18.31	18.96	19.38	20.82
	6H	17.28	17.63	18.37	18.74	20.18	18.46	18.80	19.55	19.92	21.35
	8H	17.38	17.69	18.48	18.78	20.24	18.65	18.95	19.74	20.04	21.50
	12H	17.41	17.68	18.51	18.77	20.26	18.74	19.01	19.84	20.10	21.59
12H	4H	16.88	17.26	17.97	18.34	19.79	17.85	18.23	18.94	19.32	20.76
	6H	17.30	17.60	18.40	18.70	20.15	18.45	18.75	19.55	19.85	21.30
	8H	17.41	17.68	18.51	18.77	20.26	18.64	18.91	19.74	20.00	21.50