

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: P998728

Luminaire Tested: SA2XXDIP-B675D1080UB50-4F0-XX-W2A-D4

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998728
REPORT IS A COMBINATION OF REPORTS P984474 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B675D1080UB50-4F0-XX-W2A-D4
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

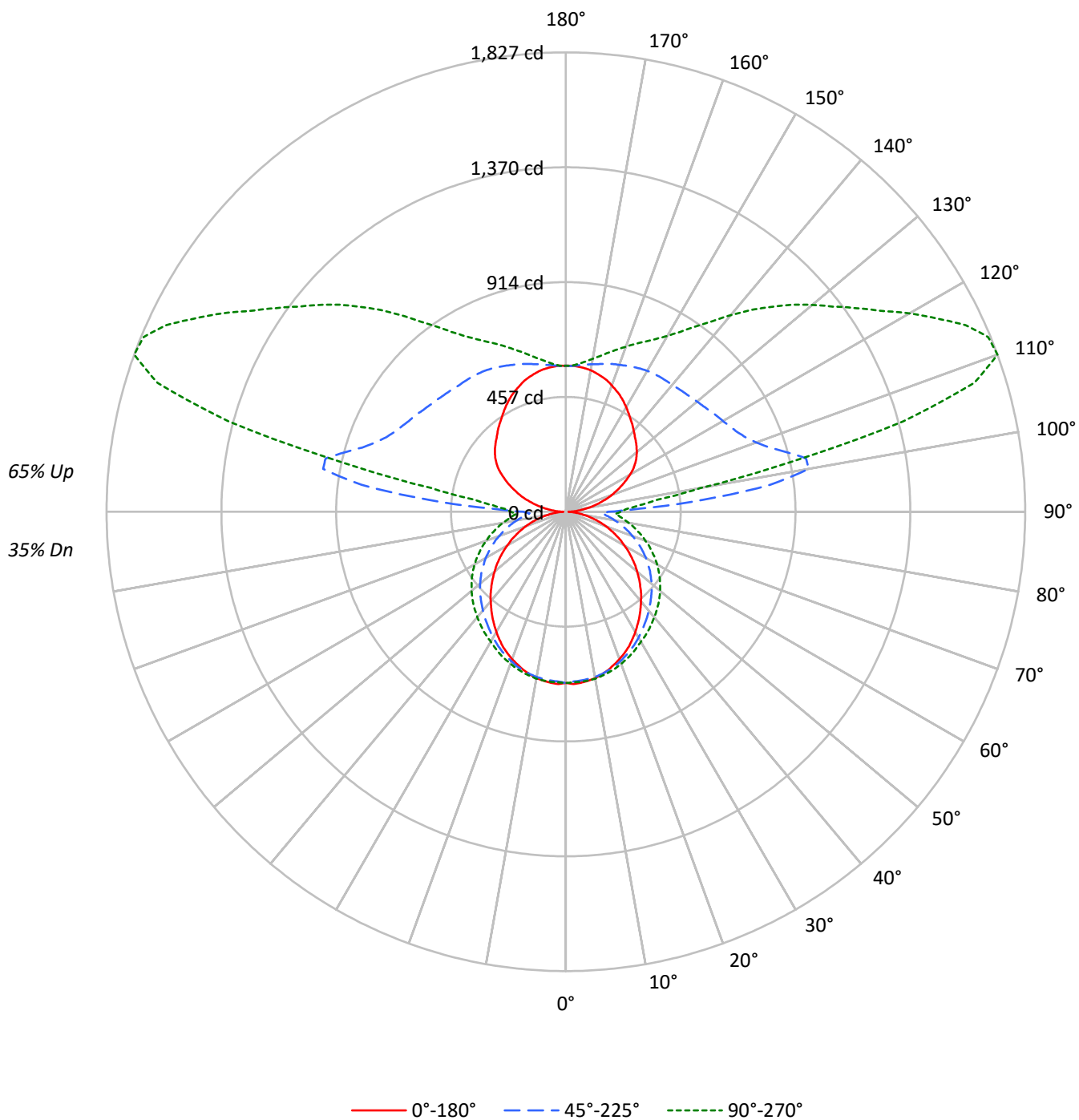
Lumens per Lamp: N/A
Luminaire Lumens: 6648.7 lumens
Efficiency: N/A
Efficacy: 93.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 70.9
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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	42	42	42			35
1	93	89	84	81	84	80	76	73	64	61	59	49	47	46	36	34	33			27
2	85	77	70	65	76	69	64	59	55	51	48	43	40	37	31	29	27			22
3	77	67	60	54	69	61	54	49	48	44	40	37	34	31	27	25	23			18
4	70	59	51	45	63	53	46	41	43	38	34	33	29	26	24	21	19			15
5	64	52	44	38	57	47	40	35	38	33	29	29	26	23	21	19	17			13
6	59	47	39	33	53	42	35	30	34	29	25	26	23	20	19	17	15			11
7	54	42	34	28	49	38	31	26	31	26	22	24	20	17	17	15	13			10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11			9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10			8
10	44	32	24	20	39	29	22	18	23	19	15	18	15	12	14	11	9			7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10778	10778	10778
5°	10827	10318	10260
10°	10754	9961	9815
15°	10602	9592	9359
20°	10410	9202	8927
25°	10222	8832	8535
30°	9957	8454	8146
35°	9689	8089	7860
40°	9407	7774	7577
45°	9138	7489	7329
50°	8848	7225	7085
55°	8545	6945	6838
60°	8175	6655	6577
65°	7789	6319	6275
70°	7349	5960	5953
75°	6791	5601	5646
80°	5908	5226	5331
85°	5015	4876	5058

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9138 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.5	1.0
10°-20°	185.1	2.8
20°-30°	280.5	4.2
30°-40°	341.6	5.1
40°-50°	367.5	5.5
50°-60°	356.9	5.4
60°-70°	311.7	4.7
70°-80°	239.9	3.6
80°-90°	164.4	2.5
90°-100°	346.2	5.2
100°-110°	876.5	13.2
110°-120°	889.6	13.4
120°-130°	717.4	10.8
130°-140°	565.1	8.5
140°-150°	419.5	6.3
150°-160°	293.4	4.4
160°-170°	172.8	2.6
170°-180°	56.2	0.8
0°-30°	530.2	8.0
0°-40°	871.7	13.1
0°-60°	1596.1	24.0
0°-90°	2312.1	34.8
90°-120°	2112.2	31.8
90°-150°	3814.2	57.4
90°-180°	4337.0	65.2
0°-180°	6648.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	681	681	681	681	681	
5°	683	680	674	680	679	65
15°	651	653	653	662	661	183
25°	592	599	608	620	623	272
35°	510	527	546	567	574	319
45°	418	445	480	510	520	323
55°	321	356	408	443	456	287
65°	219	267	326	366	379	218
75°	121	177	240	282	295	128
85°	36	97	160	201	215	37
90°	11	82	168	206	218	9
95°	47	150	551	316	290	47
105°	141	239	912	1598	1388	150
115°	244	318	751	1517	1755	242
125°	337	398	699	1217	1412	300
135°	394	470	668	1004	1152	305
145°	449	516	654	818	899	282
155°	510	551	635	718	747	235
165°	556	573	608	645	655	157
175°	579	580	585	592	590	55
180°	580	580	580	580	580	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	680.9	680.9	680.9	680.9	680.9
2.5°	685.8	682.9	675.9	680.9	678.9
5°	682.9	679.9	674.0	679.9	678.9
7.5°	677.9	675.9	671.0	677.9	676.9
10°	672.0	670.0	667.1	675.0	674.0
12.5°	662.1	663.1	661.1	669.0	668.1
15°	651.3	653.3	653.3	662.1	661.1
17.5°	637.5	641.4	644.4	653.3	653.3
20°	623.6	628.6	632.5	643.4	643.4
22.5°	608.8	614.8	620.7	631.5	633.5
25°	592.1	599.0	607.9	619.7	622.7
27.5°	572.3	583.2	593.1	607.9	609.8
30°	552.6	565.4	578.3	594.0	597.0
32.5°	530.9	545.7	561.5	580.2	586.1
35°	510.2	526.9	545.7	567.4	574.3
37.5°	487.5	506.2	529.9	553.6	560.5
40°	464.8	486.5	513.1	538.8	547.7
42.5°	443.1	464.8	496.4	525.0	533.8
45°	418.4	445.0	479.6	510.2	520.0
47.5°	394.7	423.3	462.8	494.4	505.2
50°	370.0	400.6	445.0	478.6	489.4
52.5°	346.4	378.9	426.3	460.8	472.7
55°	320.7	356.2	407.5	443.1	455.9
57.5°	296.0	335.5	386.8	425.3	438.1
60°	269.4	311.8	368.1	405.6	419.4
62.5°	245.7	290.1	346.4	386.8	399.6
65°	219.1	267.4	325.6	366.1	378.9
67.5°	195.4	245.7	304.9	345.4	359.2
70°	169.7	221.0	282.2	324.7	336.5
72.5°	146.0	199.3	261.5	302.9	317.7
75°	121.4	176.6	239.8	282.2	295.0
77.5°	97.7	154.9	219.1	261.5	275.3
80°	74.0	134.2	198.3	239.8	253.6
82.5°	54.3	113.5	178.6	220.1	232.9
85°	35.5	96.7	159.9	201.3	215.1
87.5°	21.7	80.9	144.1	184.5	197.4
90°	11.0	82.1	168.3	206.0	218.4
92.5°	25.6	114.2	293.3	239.2	239.8
95°	47.0	150.3	551.1	316.2	290.1
97.5°	64.9	176.0	819.9	474.6	368.1
100°	92.9	198.6	980.5	795.4	545.6
102.5°	117.5	219.4	979.2	1243.6	917.2
105°	141.1	239.0	912.0	1597.9	1388.3
107.5°	167.9	258.6	849.3	1721.2	1703.0
110°	193.7	278.8	805.4	1692.0	1826.8

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	218.2	298.8	773.9	1613.1	1817.7
115°	243.9	317.8	751.3	1517.0	1755.1
117.5°	269.8	337.9	735.4	1425.9	1664.6
120°	294.3	357.4	721.7	1342.6	1578.4
122.5°	317.8	378.4	711.4	1277.2	1486.9
125°	336.9	398.2	698.9	1217.2	1411.9
127.5°	353.6	417.9	689.5	1164.1	1340.4
130°	368.1	436.4	681.4	1111.5	1280.1
132.5°	381.5	454.2	674.4	1057.0	1218.5
135°	393.9	469.8	668.4	1003.8	1152.4
137.5°	406.2	483.2	663.4	950.1	1087.6
140°	420.7	494.5	658.4	901.8	1020.5
142.5°	435.2	504.6	656.4	856.2	954.5
145°	448.7	515.7	654.1	818.0	899.4
147.5°	464.4	524.6	650.8	784.6	848.9
150°	480.0	533.6	647.4	759.0	807.0
152.5°	495.6	542.5	641.8	738.4	774.7
155°	510.1	550.8	635.1	718.3	746.8
157.5°	522.4	557.6	628.4	699.3	722.2
160°	534.7	564.2	621.8	680.3	698.8
162.5°	547.0	569.3	616.2	662.5	676.4
165°	555.9	572.6	608.4	645.2	655.2
167.5°	563.7	576.0	601.7	629.6	635.1
170°	571.5	577.6	596.1	615.0	617.3
172.5°	576.0	579.4	589.4	602.2	602.8
175°	579.3	579.9	584.9	592.2	590.5
177.5°	581.6	580.5	580.5	584.9	581.6
180°	580.5	580.5	580.5	580.5	580.5

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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	11.89	12.66	12.96	13.74	15.21	14.96	15.74	16.03	16.81	18.28
	3H	13.34	14.04	14.42	15.12	16.61	17.55	18.24	18.63	19.33	20.82
	4H	13.82	14.48	14.90	15.56	17.06	18.80	19.46	19.89	20.55	22.04
	6H	14.10	14.71	15.19	15.80	17.30	20.09	20.70	21.19	21.79	23.30
	8H	14.15	14.74	15.25	15.84	17.34	20.75	21.33	21.85	22.44	23.94
	12H	14.17	14.72	15.27	15.82	17.34	21.47	22.02	22.58	23.12	24.65
4H	2H	12.93	13.59	14.03	14.68	16.17	15.28	15.95	16.38	17.03	18.53
	3H	14.63	15.19	15.73	16.30	17.81	18.07	18.63	19.17	19.74	21.25
	4H	15.25	15.77	16.36	16.87	18.39	19.48	20.00	20.59	21.10	22.63
	6H	15.66	16.11	16.77	17.23	18.75	20.95	21.39	22.06	22.52	24.04
	8H	15.77	16.18	16.88	17.30	18.84	21.70	22.12	22.81	23.24	24.77
	12H	15.81	16.19	16.94	17.32	18.86	22.53	22.91	23.66	24.04	25.58
8H	4H	16.03	16.45	17.15	17.57	19.10	19.62	20.04	20.73	21.16	22.69
	6H	16.66	17.01	17.80	18.17	19.70	21.24	21.60	22.38	22.75	24.29
	8H	16.88	17.19	18.02	18.33	19.88	22.13	22.44	23.27	23.58	25.13
	12H	17.01	17.28	18.16	18.42	20.01	23.12	23.40	24.27	24.53	26.12
12H	4H	16.23	16.61	17.36	17.74	19.28	19.59	19.97	20.72	21.10	22.64
	6H	17.00	17.30	18.14	18.44	19.99	21.27	21.58	22.41	22.72	24.27
	8H	17.29	17.57	18.44	18.70	20.29	22.19	22.47	23.34	23.60	25.19