

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: P998730

Luminaire Tested: SA2XXDIP-B675D1080UB50-4F0-XX-W2A-F1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998730
REPORT IS A COMBINATION OF REPORTS P984476 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-F1
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

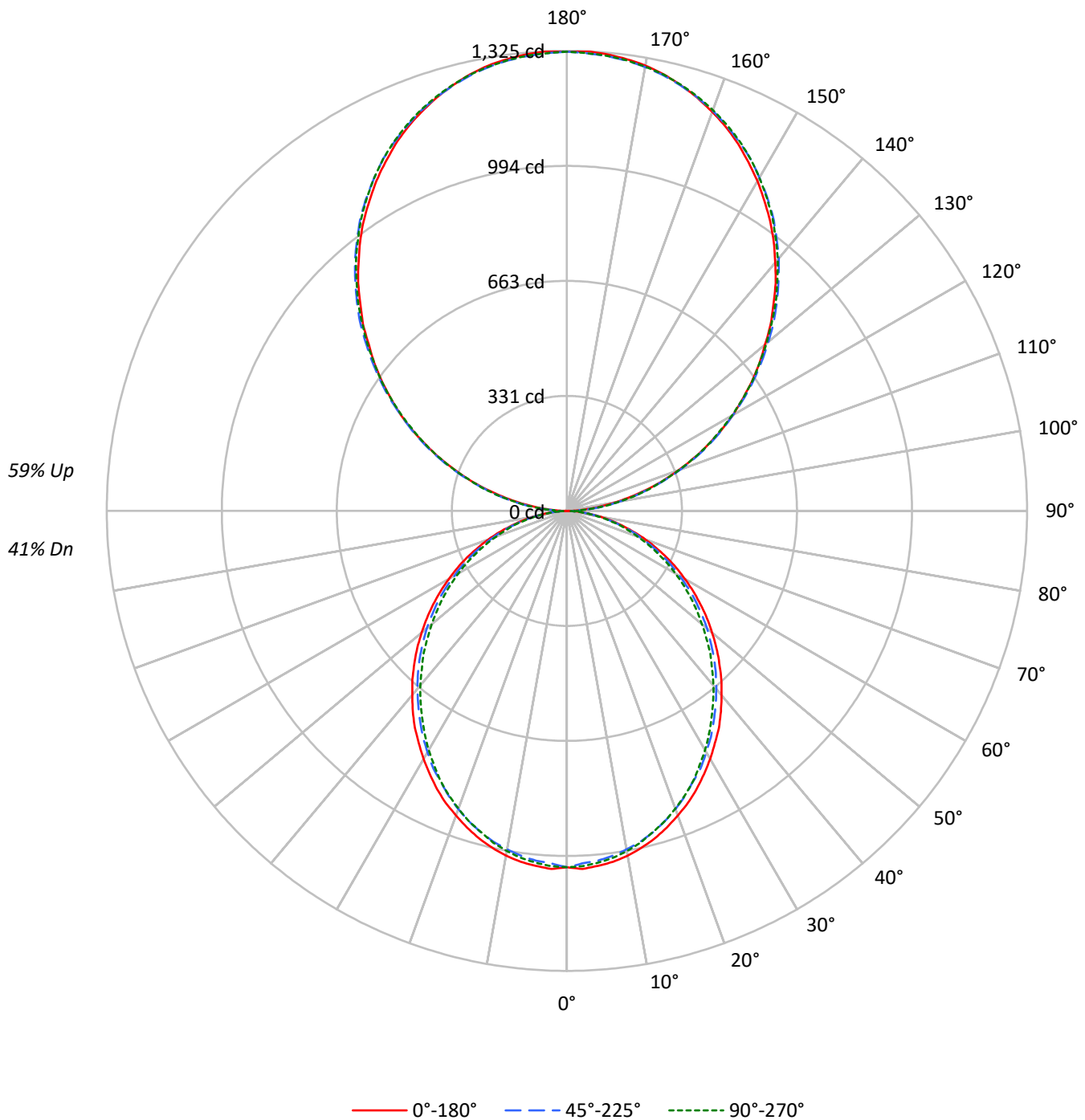
Lumens per Lamp: N/A
Luminaire Lumens: 6313.0 lumens
Efficiency: N/A
Efficacy: 89.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 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

TEST NUMBER: P998730

CATALOG NUMBER: SA2XXDIP-B675D1080UB50-4F0-XX-W2A-F1

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	105	105	105	105	96	96	96	96	79	79	79	63	63	63	48	48	48
1	96	92	88	84	87	84	80	77	69	67	64	55	54	52	43	42	41
2	87	80	74	69	79	73	68	64	60	57	53	48	46	44	37	36	34
3	80	70	63	57	72	64	58	53	53	49	45	43	40	37	33	31	29
4	73	62	54	48	66	57	50	45	47	42	38	38	34	32	30	27	25
5	67	55	47	41	61	51	44	39	42	37	33	34	30	27	27	24	22
6	61	50	42	36	56	46	39	33	38	33	29	31	27	24	24	21	19
7	57	45	37	31	52	41	34	29	34	29	25	28	24	21	22	19	17
8	53	41	33	28	48	37	31	26	31	26	22	26	22	19	20	17	15
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	19	16	14
10	46	34	27	22	42	31	25	21	26	21	18	22	18	15	17	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

TEST NUMBER: P998730

CATALOG NUMBER: SA2XXDIP-B675D1080UB50-4F0-XX-W2A-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.6	1.5
10°-20°	271.8	4.3
20°-30°	399.4	6.3
30°-40°	463.9	7.3
40°-50°	463.3	7.3
50°-60°	404.0	6.4
60°-70°	298.6	4.7
70°-80°	169.0	2.7
80°-90°	48.4	0.8
90°-100°	81.8	1.3
100°-110°	260.1	4.1
110°-120°	445.1	7.1
120°-130°	585.4	9.3
130°-140°	657.1	10.4
140°-150°	644.4	10.2
150°-160°	540.5	8.6
160°-170°	358.5	5.7
170°-180°	125.3	2.0
0°-30°	767.7	12.2
0°-40°	1231.6	19.5
0°-60°	2098.9	33.2
0°-90°	2614.8	41.4
90°-120°	787.0	12.5
90°-150°	2673.9	42.4
90°-180°	3698.0	58.6
0°-180°	6313.0	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	14	39	37	38	6
95°	58	69	71	71	69	65
105°	240	243	246	248	248	253
115°	446	453	451	450	446	442
125°	650	660	656	653	652	581
135°	840	853	855	854	851	650
145°	1020	1028	1035	1036	1031	637
155°	1166	1170	1173	1179	1175	537
165°	1269	1268	1268	1276	1270	358
175°	1320	1317	1315	1323	1316	125
180°	1323	1323	1323	1323	1323	

TEST NUMBER: P998730

CATALOG NUMBER: SA2XXDIP-B675D1080UB50-4F0-XX-W2A-F1

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°	1.1	14.5	39.1	36.8	38.0
92.5°	24.6	33.5	34.6	35.7	35.7
95°	58.0	69.2	71.4	71.4	69.2
97.5°	97.1	107.2	111.6	111.6	111.6
100°	141.8	150.7	154.0	154.0	152.9
102.5°	188.6	195.3	199.8	200.9	199.8
105°	240.0	243.3	245.6	247.8	247.8
107.5°	291.3	295.8	295.8	296.9	291.3
110°	340.5	347.2	347.2	347.2	343.8

TEST NUMBER: P998730

CATALOG NUMBER: SA2XXDIP-B675D1080UB50-4F0-XX-W2A-F1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	394.0	400.7	399.6	396.3	394.0
115°	446.5	453.2	451.0	449.9	446.5
117.5°	499.0	507.9	502.3	499.0	495.6
120°	551.4	560.4	551.4	551.4	548.1
122.5°	599.4	610.6	605.0	601.7	599.4
125°	649.7	659.7	656.4	653.0	651.9
127.5°	698.8	711.1	706.6	702.1	698.8
130°	744.6	759.1	756.8	754.6	750.1
132.5°	795.9	807.1	808.2	802.6	799.2
135°	840.5	852.8	855.1	853.9	850.6
137.5°	889.7	899.7	901.9	900.8	896.4
140°	933.2	943.2	948.8	948.8	944.4
142.5°	977.9	987.9	991.2	992.4	987.9
145°	1020.3	1028.1	1034.8	1035.9	1031.4
147.5°	1058.2	1068.3	1072.7	1075.0	1070.5
150°	1097.3	1104.0	1108.5	1111.8	1108.5
152.5°	1131.9	1138.6	1144.2	1148.6	1144.2
155°	1166.5	1169.8	1173.2	1178.8	1175.4
157.5°	1196.6	1198.9	1201.1	1208.9	1203.3
160°	1223.4	1225.7	1226.8	1233.5	1229.0
162.5°	1248.0	1248.0	1249.1	1256.9	1251.3
165°	1269.2	1268.1	1268.1	1275.9	1270.3
167.5°	1288.2	1284.8	1284.8	1292.6	1287.1
170°	1302.7	1299.3	1298.2	1306.0	1299.3
172.5°	1312.7	1309.4	1308.3	1316.1	1309.4
175°	1320.5	1317.2	1315.0	1322.8	1316.1
177.5°	1325.0	1321.7	1319.4	1326.1	1319.4
180°	1322.8	1322.8	1322.8	1322.8	1322.8

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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	14.07	14.86	15.10	15.90	17.28	14.85	15.64	15.88	16.68	18.07
	3H	15.40	16.11	16.44	17.15	18.56	16.47	17.18	17.51	18.22	19.63
	4H	15.80	16.48	16.85	17.52	18.94	17.06	17.73	18.11	18.78	20.19
	6H	16.02	16.64	17.08	17.69	19.12	17.46	18.08	18.52	19.13	20.56
	8H	16.05	16.64	17.11	17.70	19.12	17.57	18.16	18.63	19.22	20.64
	12H	16.04	16.60	17.11	17.66	19.10	17.61	18.17	18.68	19.23	20.68
4H	2H	14.53	15.20	15.59	16.25	17.66	15.17	15.85	16.23	16.89	18.31
	3H	16.04	16.60	17.11	17.68	19.10	16.95	17.51	18.01	18.58	20.01
	4H	16.54	17.06	17.61	18.12	19.57	17.63	18.14	18.70	19.20	20.65
	6H	16.84	17.28	17.92	18.37	19.82	18.12	18.56	19.20	19.65	21.09
	8H	16.90	17.31	17.98	18.39	19.85	18.26	18.67	19.34	19.75	21.21
	12H	16.90	17.27	17.99	18.36	19.83	18.32	18.69	19.41	19.78	21.25
8H	4H	16.71	17.13	17.79	18.21	19.67	17.71	18.12	18.79	19.20	20.66
	6H	17.09	17.44	18.20	18.56	20.01	18.27	18.61	19.37	19.73	21.19
	8H	17.20	17.50	18.31	18.60	20.08	18.46	18.76	19.57	19.86	21.34
	12H	17.23	17.49	18.34	18.59	20.10	18.56	18.82	19.67	19.92	21.43
12H	4H	16.69	17.07	17.79	18.16	19.63	17.67	18.04	18.76	19.13	20.60
	6H	17.11	17.41	18.22	18.52	19.99	18.26	18.56	19.37	19.67	21.14
	8H	17.22	17.48	18.33	18.58	20.10	18.46	18.72	19.57	19.82	21.33