

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: P998959

Luminaire Tested: SA2XXDIP-B675D925UB40-4F0-XX-W2A-D4

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998959
REPORT IS A COMBINATION OF REPORTS P984705 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B675D925UB40-4F0-XX-W2A-D4
Description: Define 2 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

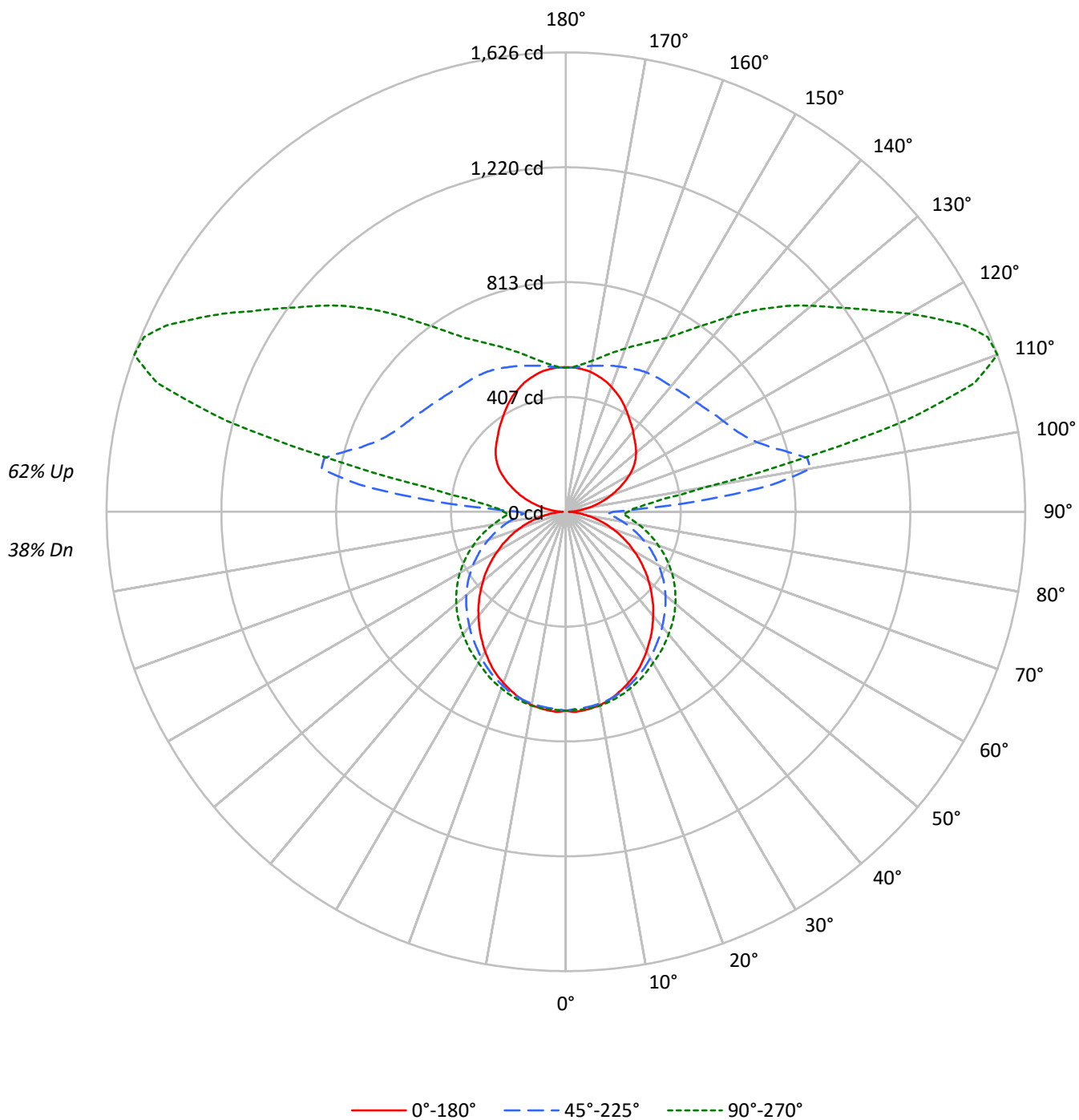
Lumens per Lamp: N/A
Luminaire Lumens: 6252.0 lumens
Efficiency: N/A
Efficacy: 97.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 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

TEST NUMBER: P998959

CATALOG NUMBER: SA2XXDIP-B675D925UB40-4F0-XX-W2A-D4

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	104	104	104	104	95	95	95	95	77	77	77	60	60	60	45	45	45
1	94	89	85	81	85	81	77	74	66	63	61	51	50	48	38	37	36
2	85	77	71	65	77	70	65	60	57	53	49	44	42	39	33	31	29
3	77	67	60	54	70	61	55	49	50	45	41	39	35	32	29	26	24
4	71	59	51	45	64	54	47	41	44	39	34	34	31	27	26	23	21
5	65	53	44	38	58	48	41	35	39	34	29	31	27	24	23	20	18
6	59	47	39	33	53	43	36	30	35	29	25	28	24	20	21	18	16
7	55	42	34	29	49	39	32	26	32	26	22	25	21	18	19	16	14
8	51	38	30	25	46	35	28	23	29	23	20	23	19	16	17	14	12
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11
10	44	32	25	20	40	29	23	18	24	19	16	19	15	13	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11147	11147	11147
5°	11197	10672	10612
10°	11122	10301	10152
15°	10965	9919	9680
20°	10767	9518	9232
25°	10573	9134	8827
30°	10297	8743	8425
35°	10020	8366	8130
40°	9729	8041	7836
45°	9450	7745	7580
50°	9152	7473	7328
55°	8839	7184	7072
60°	8454	6883	6801
65°	8055	6537	6491
70°	7600	6165	6156
75°	7021	5793	5842
80°	6108	5405	5514
85°	5184	5040	5232

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9450 cd/sqm

TEST NUMBER: P998959

CATALOG NUMBER: SA2XXDIP-B675D925UB40-4F0-XX-W2A-D4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.8	1.1
10°-20°	191.5	3.1
20°-30°	290.1	4.6
30°-40°	353.3	5.7
40°-50°	380.1	6.1
50°-60°	369.1	5.9
60°-70°	322.4	5.2
70°-80°	248.1	4.0
80°-90°	169.4	2.7
90°-100°	321.7	5.1
100°-110°	783.9	12.5
110°-120°	791.2	12.7
120°-130°	636.0	10.2
130°-140°	499.2	8.0
140°-150°	369.5	5.9
150°-160°	258.3	4.1
160°-170°	152.1	2.4
170°-180°	49.5	0.8
0°-30°	548.3	8.8
0°-40°	901.6	14.4
0°-60°	1650.8	26.4
0°-90°	2390.7	38.2
90°-120°	1896.8	30.3
90°-150°	3401.5	54.4
90°-180°	3861.0	61.8
0°-180°	6252.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	704	704	704	704	704	
5°	706	703	697	703	702	67
15°	674	676	676	685	684	190
25°	612	620	629	641	644	282
35°	528	545	564	587	594	330
45°	433	460	496	528	538	334
55°	332	368	422	458	472	297
65°	227	277	337	379	392	225
75°	126	183	248	292	305	133
85°	37	100	165	208	222	39
90°	11	83	168	207	220	9
95°	43	141	502	302	280	42
105°	125	215	816	1425	1242	133
115°	215	282	670	1349	1560	213
125°	297	351	620	1081	1253	264
135°	347	414	590	888	1020	268
145°	395	454	576	721	793	248
155°	449	485	559	632	657	207
165°	489	504	535	568	577	138
175°	510	510	515	521	520	48
180°	511	511	511	511	511	

TEST NUMBER: P998959

CATALOG NUMBER: SA2XXDIP-B675D925UB40-4F0-XX-W2A-D4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	704.2	704.2	704.2	704.2	704.2
2.5°	709.3	706.2	699.1	704.2	702.2
5°	706.2	703.2	697.1	703.2	702.2
7.5°	701.1	699.1	694.0	701.1	700.1
10°	695.0	693.0	689.9	698.1	697.1
12.5°	684.8	685.8	683.8	692.0	690.9
15°	673.6	675.6	675.6	684.8	683.8
17.5°	659.3	663.4	666.4	675.6	675.6
20°	645.0	650.1	654.2	665.4	665.4
22.5°	629.7	635.8	641.9	653.2	655.2
25°	612.4	619.5	628.7	640.9	644.0
27.5°	591.9	603.2	613.4	628.7	630.7
30°	571.5	584.8	598.1	614.4	617.5
32.5°	549.1	564.4	580.7	600.1	606.2
35°	527.6	545.0	564.4	586.8	594.0
37.5°	504.2	523.6	548.1	572.5	579.7
40°	480.7	503.1	530.7	557.2	566.4
42.5°	458.2	480.7	513.4	543.0	552.1
45°	432.7	460.3	496.0	527.6	537.8
47.5°	408.2	437.8	478.7	511.3	522.5
50°	382.7	414.4	460.3	495.0	506.2
52.5°	358.2	391.9	440.9	476.6	488.9
55°	331.7	368.4	421.5	458.2	471.5
57.5°	306.2	347.0	400.1	439.9	453.1
60°	278.6	322.5	380.7	419.5	433.7
62.5°	254.1	300.1	358.2	400.1	413.3
65°	226.6	276.6	336.8	378.6	391.9
67.5°	202.1	254.1	315.4	357.2	371.5
70°	175.5	228.6	291.9	335.8	348.0
72.5°	151.0	206.2	270.5	313.3	328.6
75°	125.5	182.7	248.0	291.9	305.2
77.5°	101.0	160.2	226.6	270.5	284.7
80°	76.5	138.8	205.1	248.0	262.3
82.5°	56.1	117.4	184.7	227.6	240.9
85°	36.7	100.0	165.3	208.2	222.5
87.5°	22.5	83.7	149.0	190.8	204.1
90°	11.2	82.6	168.1	207.4	220.2
92.5°	23.9	110.0	276.8	235.0	237.5
95°	42.6	140.6	502.5	301.5	280.4
97.5°	58.2	162.5	738.0	439.8	347.8
100°	82.7	181.5	878.2	721.0	502.7
102.5°	104.3	199.0	875.9	1114.2	828.6
105°	125.0	215.4	815.8	1424.8	1241.9
107.5°	148.5	232.0	759.5	1532.0	1517.7
110°	171.1	249.0	720.0	1505.2	1625.5

TEST NUMBER: P998959

CATALOG NUMBER: SA2XXDIP-B675D925UB40-4F0-XX-W2A-D4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	192.7	266.0	691.3	1434.6	1616.3
115°	215.3	282.0	670.3	1348.9	1560.1
117.5°	237.9	299.0	655.4	1267.6	1479.2
120°	259.5	315.6	642.4	1193.0	1402.3
122.5°	280.1	333.8	632.2	1134.4	1320.4
125°	296.7	350.8	620.2	1080.6	1253.3
127.5°	311.5	368.0	611.2	1032.6	1189.2
130°	324.2	384.2	603.1	985.2	1134.8
132.5°	336.0	399.8	595.9	936.2	1079.6
135°	346.8	413.6	589.9	888.4	1020.3
137.5°	357.6	425.4	584.8	840.0	962.1
140°	370.4	435.2	579.7	796.5	901.8
142.5°	383.2	444.1	577.7	755.4	842.6
145°	394.9	453.9	575.7	720.8	793.2
147.5°	408.7	461.8	572.8	690.7	747.8
150°	422.5	469.6	569.8	668.0	710.3
152.5°	436.2	477.4	564.9	649.9	681.8
155°	449.0	484.8	559.0	632.2	657.3
157.5°	459.8	490.7	553.1	615.5	635.6
160°	470.6	496.6	547.2	598.8	615.0
162.5°	481.4	501.0	542.3	583.0	595.4
165°	489.3	504.0	535.4	567.8	576.7
167.5°	496.1	507.0	529.5	554.1	559.0
170°	503.0	508.4	524.6	541.3	543.3
172.5°	506.9	509.9	518.7	530.0	530.5
175°	509.9	510.4	514.8	521.2	519.7
177.5°	511.9	510.9	510.9	514.8	511.9
180°	510.9	510.9	510.9	510.9	510.9

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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	12.41	13.21	13.45	14.26	15.69	15.48	16.28	16.52	17.34	18.76
	3H	13.86	14.59	14.91	15.65	17.09	18.07	18.79	19.12	19.85	21.30
	4H	14.34	15.02	15.40	16.09	17.54	19.32	20.01	20.38	21.07	22.52
	6H	14.62	15.25	15.69	16.32	17.78	20.61	21.25	21.68	22.31	23.78
	8H	14.67	15.28	15.75	16.37	17.82	21.27	21.88	22.35	22.96	24.42
	12H	14.69	15.27	15.77	16.34	17.83	21.99	22.57	23.07	23.65	25.13
4H	2H	13.45	14.14	14.52	15.20	16.65	15.80	16.49	16.87	17.56	19.01
	3H	15.15	15.73	16.23	16.83	18.29	18.59	19.17	19.67	20.26	21.73
	4H	15.77	16.31	16.86	17.39	18.88	20.01	20.54	21.09	21.62	23.11
	6H	16.19	16.65	17.27	17.76	19.23	21.47	21.94	22.56	23.04	24.52
	8H	16.29	16.73	17.38	17.83	19.32	22.23	22.66	23.32	23.76	25.25
	12H	16.33	16.73	17.44	17.84	19.34	23.05	23.45	24.16	24.56	26.06
8H	4H	16.56	16.99	17.65	18.09	19.59	20.15	20.58	21.24	21.68	23.17
	6H	17.19	17.55	18.30	18.69	20.18	21.77	22.14	22.88	23.28	24.77
	8H	17.41	17.73	18.53	18.85	20.36	22.66	22.98	23.78	24.10	25.61
	12H	17.54	17.83	18.66	18.94	20.49	23.65	23.94	24.78	25.05	26.60
12H	4H	16.75	17.15	17.86	18.26	19.76	20.12	20.51	21.23	21.62	23.12
	6H	17.52	17.84	18.64	18.96	20.47	21.80	22.12	22.91	23.24	24.75
	8H	17.82	18.11	18.95	19.23	20.77	22.72	23.01	23.85	24.12	25.67