

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: P997652

Luminaire Tested: SA2XXDP-B675DB50-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997652
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-14)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDP-B675DB50-4F0-XX-W2A-D
Description: Define 2 Direct Recessed with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

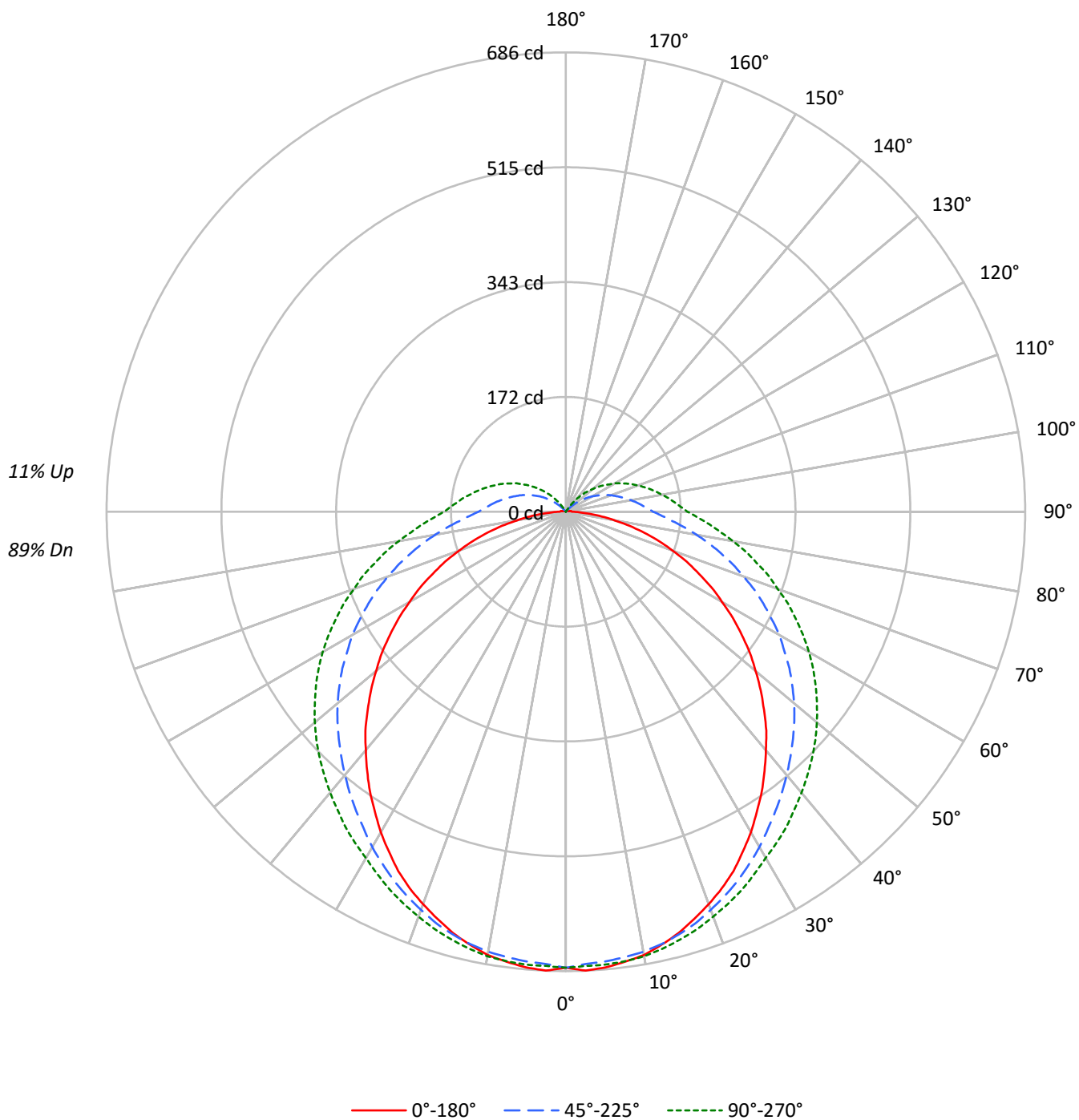
Lumens per Lamp: N/A
Luminaire Lumens: 2598.0 lumens
Efficiency: N/A
Efficacy: 72.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 35.9
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: P997652

CATALOG NUMBER: SA2XXDP-B675DB50-4F0-XX-W2A-D

Luminous Intensity Polar Plot



TEST NUMBER: P997652

CATALOG NUMBER: SA2XXDP-B675DB50-4F0-XX-W2A-D

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	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92
1	104	98	93	88	100	95	90	86	88	85	81	82	79	77	77	75	72
2	94	84	77	70	90	81	74	68	76	70	65	71	66	62	66	62	59
3	85	73	64	57	81	71	63	56	66	59	54	62	56	51	58	53	49
4	77	64	55	48	74	62	54	47	58	51	45	55	48	43	51	46	42
5	71	57	48	41	68	56	47	40	52	44	39	49	42	37	46	40	36
6	65	51	42	35	63	50	41	35	47	39	34	44	37	32	42	36	31
7	60	46	37	31	58	45	37	31	43	35	30	40	34	29	38	32	28
8	56	42	34	28	54	41	33	27	39	32	26	37	30	25	35	29	25
9	52	39	30	25	50	38	30	24	36	29	24	34	27	23	32	26	22
10	49	36	28	22	47	35	27	22	33	26	21	31	25	21	30	24	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10778	10778	10778
5°	10851	10710	10788
10°	10801	10723	10834
15°	10673	10706	10834
20°	10505	10655	10838
25°	10341	10617	10876
30°	10100	10570	10912
35°	9859	10545	11098
40°	9604	10603	11317
45°	9366	10736	11641
50°	9112	10959	12052
55°	8851	11246	12582
60°	8529	11654	13278
65°	8206	12195	14192
70°	7854	13061	15574
75°	7425	14666	18042
80°	6746	18076	23117
85°	6448	29041	39067

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 71636 cd/sqm

TEST NUMBER: P997652

CATALOG NUMBER: SA2XXDP-B675DB50-4F0-XX-W2A-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.5	2.5
10°-20°	185.1	7.1
20°-30°	280.5	10.8
30°-40°	341.6	13.1
40°-50°	367.5	14.1
50°-60°	356.9	13.7
60°-70°	311.7	12.0
70°-80°	239.9	9.2
80°-90°	160.7	6.2
90°-100°	110.9	4.3
100°-110°	81.0	3.1
110°-120°	53.4	2.1
120°-130°	29.8	1.1
130°-140°	12.5	0.5
140°-150°	2.1	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	530.2	20.4
0°-40°	871.7	33.6
0°-60°	1596.1	61.4
0°-90°	2308.4	88.9
90°-120°	245.3	9.4
90°-150°	289.7	11.1
90°-180°	290.0	11.2
0°-180°	2598.0	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°	10	67	130	170	182	7
95°	8	54	114	151	163	6
105°	5	34	85	119	130	6
115°	4	15	59	89	100	4
125°	2	2	34	60	69	2
135°	1	1	11	32	40	1
145°	0	0	0	6	11	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

TEST NUMBER: P997652

CATALOG NUMBER: SA2XXDP-B675DB50-4F0-XX-W2A-D

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°	9.9	67.1	130.3	169.7	181.6
92.5°	8.9	61.2	121.4	159.9	171.7
95°	7.9	54.3	113.5	151.0	162.8
97.5°	6.9	49.3	106.6	143.1	154.9
100°	6.9	43.4	98.7	135.2	146.0
102.5°	5.9	38.5	91.8	127.3	138.1
105°	4.9	33.6	84.9	119.4	130.3
107.5°	4.9	28.6	78.0	111.5	122.4
110°	3.9	23.7	72.0	103.6	114.5



TEST NUMBER: P997652

CATALOG NUMBER: SA2XXDP-B675DB50-4F0-XX-W2A-D

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.9	19.7	65.1	96.7	107.6
115°	3.9	14.8	59.2	88.8	99.7
117.5°	3.0	10.9	52.3	81.9	91.8
120°	3.0	6.9	46.4	74.0	84.9
122.5°	3.0	3.9	40.5	67.1	76.0
125°	2.0	2.0	33.6	60.2	69.1
127.5°	2.0	1.0	27.6	52.3	61.2
130°	2.0	1.0	21.7	45.4	53.3
132.5°	2.0	1.0	15.8	38.5	46.4
135°	1.0	1.0	10.9	31.6	39.5
137.5°	1.0	1.0	5.9	24.7	31.6
140°	1.0	0.0	2.0	17.8	23.7
142.5°	1.0	0.0	0.0	11.8	16.8
145°	0.0	0.0	0.0	5.9	10.9
147.5°	0.0	0.0	0.0	1.0	3.9
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P997652

CATALOG NUMBER: SA2XXDP-B675DB50-4F0-XX-W2A-D

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	18.65	20.13	19.18	20.66	21.24	20.50	21.98	21.03	22.51	23.09
	3H	20.53	21.88	21.07	22.42	23.04	23.16	24.51	23.70	25.05	25.67
	4H	21.26	22.55	21.82	23.10	23.73	24.47	25.75	25.02	26.31	26.93
	6H	21.82	23.02	22.39	23.58	24.23	25.84	27.04	26.41	27.61	28.25
	8H	22.02	23.17	22.60	23.75	24.40	26.56	27.71	27.14	28.30	28.95
	12H	22.16	23.27	22.75	23.85	24.53	27.38	28.48	27.97	29.06	29.74
4H	2H	19.77	21.06	20.33	21.61	22.24	21.13	22.41	21.69	22.97	23.60
	3H	21.95	23.05	22.52	23.65	24.30	24.07	25.17	24.64	25.76	26.41
	4H	22.87	23.88	23.46	24.48	25.16	25.58	26.60	26.17	27.20	27.88
	6H	23.62	24.52	24.23	25.14	25.83	27.18	28.08	27.79	28.70	29.40
	8H	23.90	24.74	24.51	25.37	26.07	28.02	28.86	28.64	29.49	30.20
	12H	24.12	24.89	24.76	25.54	26.26	28.98	29.75	29.62	30.40	31.11
8H	4H	23.80	24.64	24.41	25.27	25.97	25.99	26.83	26.61	27.46	28.17
	6H	24.86	25.58	25.50	26.24	26.95	27.85	28.56	28.49	29.23	29.94
	8H	25.32	25.97	25.98	26.64	27.36	28.89	29.54	29.54	30.21	30.93
	12H	25.72	26.30	26.38	26.97	27.75	30.10	30.67	30.76	31.34	32.12
12H	4H	24.07	24.83	24.70	25.48	26.20	26.05	26.81	26.68	27.46	28.18
	6H	25.29	25.94	25.95	26.61	27.34	27.98	28.63	28.63	29.30	30.02
	8H	25.91	26.49	26.57	27.15	27.94	29.13	29.71	29.79	30.37	31.16