

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: P997649

Luminaire Tested: SA2XXDP-B675DB40-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997649
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-B675DB40-4F0-XX-W2A-D
Description: Define 2 Direct Recessed with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

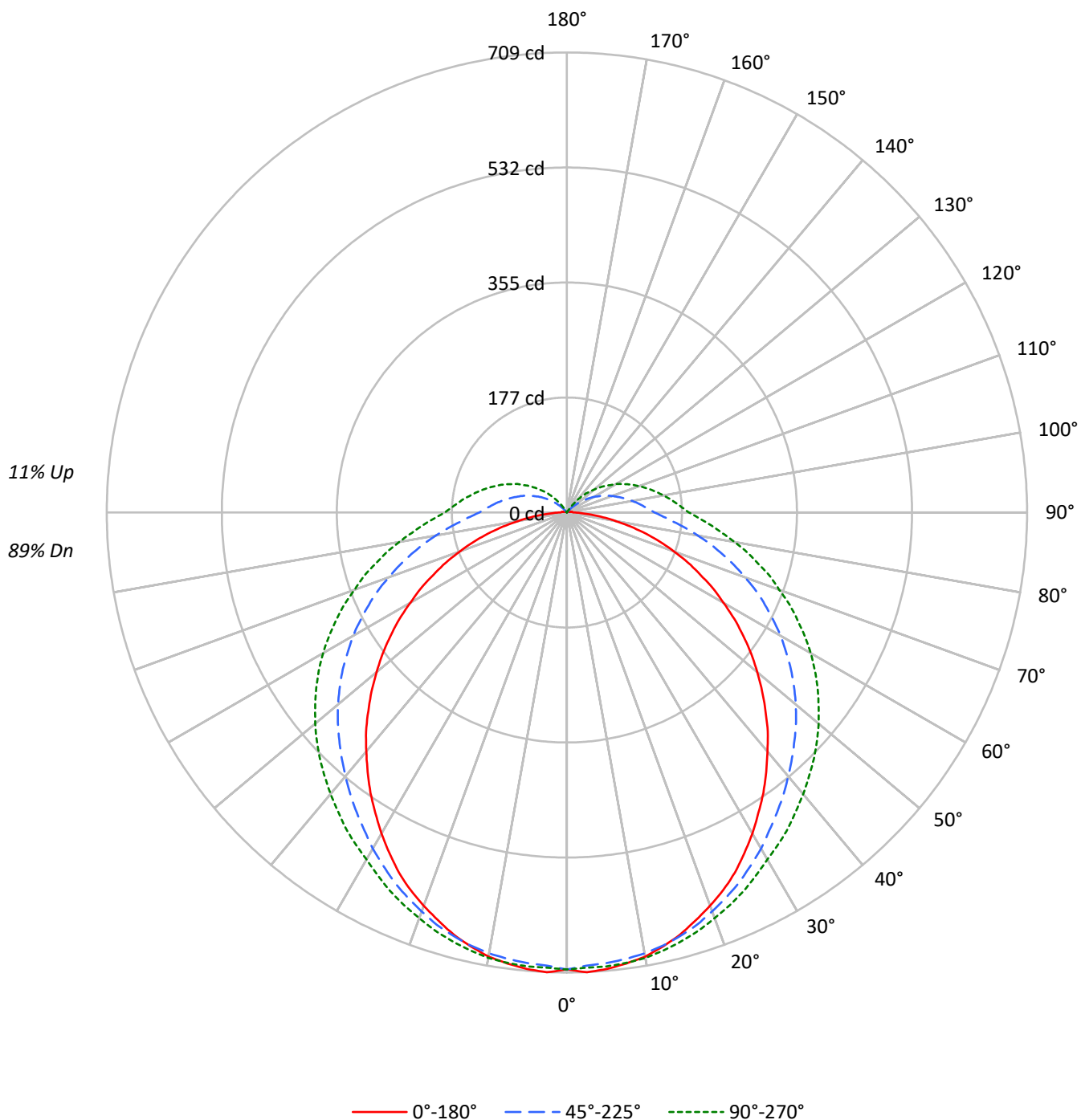
Lumens per Lamp: N/A
Luminaire Lumens: 2687.0 lumens
Efficiency: N/A
Efficacy: 74.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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: P997649

CATALOG NUMBER: SA2XXDP-B675DB40-4F0-XX-W2A-D

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	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°	11147	11147	11147
5°	11221	11077	11158
10°	11171	11089	11205
15°	11039	11072	11206
20°	10865	11020	11209
25°	10696	10981	11248
30°	10446	10932	11287
35°	10195	10906	11478
40°	9933	10966	11704
45°	9686	11103	12039
50°	9424	11335	12466
55°	9154	11632	13012
60°	8820	12052	13730
65°	8487	12615	14679
70°	8122	13510	16106
75°	7676	15168	18666
80°	6974	18696	23911
85°	6665	30022	40411

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 74067 cd/sqm

TEST NUMBER: P997649

CATALOG NUMBER: SA2XXDP-B675DB40-4F0-XX-W2A-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.8	2.5
10°-20°	191.5	7.1
20°-30°	290.1	10.8
30°-40°	353.3	13.1
40°-50°	380.1	14.1
50°-60°	369.1	13.7
60°-70°	322.4	12.0
70°-80°	248.1	9.2
80°-90°	166.2	6.2
90°-100°	114.6	4.3
100°-110°	83.7	3.1
110°-120°	55.3	2.1
120°-130°	30.8	1.1
130°-140°	12.9	0.5
140°-150°	2.2	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	548.3	20.4
0°-40°	901.6	33.6
0°-60°	1650.8	61.4
0°-90°	2387.4	88.9
90°-120°	253.6	9.4
90°-150°	299.5	11.1
90°-180°	300.0	11.2
0°-180°	2687.0	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°	10	69	135	176	188	7
95°	8	56	117	156	168	6
105°	5	35	88	124	135	6
115°	4	15	61	92	103	4
125°	2	2	35	62	71	2
135°	1	1	11	33	41	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: P997649

CATALOG NUMBER: SA2XXDP-B675DB40-4F0-XX-W2A-D

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°	10.2	69.4	134.7	175.5	187.8
92.5°	9.2	63.3	125.5	165.3	177.6
95°	8.2	56.1	117.4	156.1	168.4
97.5°	7.1	51.0	110.2	148.0	160.2
100°	7.1	44.9	102.1	139.8	151.0
102.5°	6.1	39.8	94.9	131.7	142.9
105°	5.1	34.7	87.8	123.5	134.7
107.5°	5.1	29.6	80.6	115.3	126.6
110°	4.1	24.5	74.5	107.2	118.4



TEST NUMBER: P997649

CATALOG NUMBER: SA2XXDP-B675DB40-4F0-XX-W2A-D

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.1	20.4	67.4	100.0	111.2
115°	4.1	15.3	61.2	91.9	103.1
117.5°	3.1	11.2	54.1	84.7	94.9
120°	3.1	7.1	48.0	76.5	87.8
122.5°	3.1	4.1	41.8	69.4	78.6
125°	2.0	2.0	34.7	62.3	71.4
127.5°	2.0	1.0	28.6	54.1	63.3
130°	2.0	1.0	22.5	46.9	55.1
132.5°	2.0	1.0	16.3	39.8	48.0
135°	1.0	1.0	11.2	32.7	40.8
137.5°	1.0	1.0	6.1	25.5	32.7
140°	1.0	0.0	2.0	18.4	24.5
142.5°	1.0	0.0	0.0	12.2	17.3
145°	0.0	0.0	0.0	6.1	11.2
147.5°	0.0	0.0	0.0	1.0	4.1
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

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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	18.77	20.25	19.29	20.78	21.36	20.62	22.10	21.14	22.63	23.21
	3H	20.65	22.00	21.19	22.54	23.16	23.28	24.63	23.82	25.17	25.78
	4H	21.38	22.66	21.94	23.22	23.85	24.58	25.87	25.14	26.42	27.05
	6H	21.94	23.14	22.51	23.70	24.35	25.96	27.16	26.53	27.72	28.37
	8H	22.13	23.28	22.72	23.87	24.52	26.68	27.83	27.26	28.42	29.07
	12H	22.28	23.38	22.87	23.96	24.65	27.50	28.60	28.09	29.18	29.86
4H	2H	19.89	21.18	20.45	21.73	22.36	21.25	22.53	21.81	23.08	23.71
	3H	22.07	23.17	22.64	23.76	24.41	24.18	25.28	24.76	25.88	26.53
	4H	22.99	24.00	23.58	24.60	25.28	25.70	26.71	26.29	27.31	27.99
	6H	23.74	24.63	24.35	25.26	25.95	27.30	28.19	27.91	28.82	29.51
	8H	24.02	24.86	24.63	25.49	26.19	28.14	28.98	28.75	29.61	30.31
	12H	24.24	25.01	24.88	25.66	26.37	29.10	29.86	29.73	30.52	31.23
8H	4H	23.92	24.76	24.53	25.39	26.09	26.11	26.95	26.72	27.58	28.28
	6H	24.98	25.69	25.62	26.36	27.07	27.96	28.68	28.61	29.35	30.06
	8H	25.44	26.08	26.09	26.76	27.48	29.00	29.65	29.66	30.33	31.05
	12H	25.84	26.42	26.50	27.08	27.87	30.21	30.79	30.87	31.46	32.24
12H	4H	24.18	24.95	24.82	25.60	26.31	26.16	26.93	26.80	27.58	28.29
	6H	25.41	26.06	26.07	26.73	27.45	28.09	28.74	28.75	29.42	30.14
	8H	26.03	26.61	26.69	27.27	28.06	29.25	29.82	29.91	30.49	31.27