

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: P997643

Luminaire Tested: SA2XXDP-B675DB30-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997643
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-B675DB30-4F0-XX-W2A-D
Description: Define 2 Direct Recessed with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

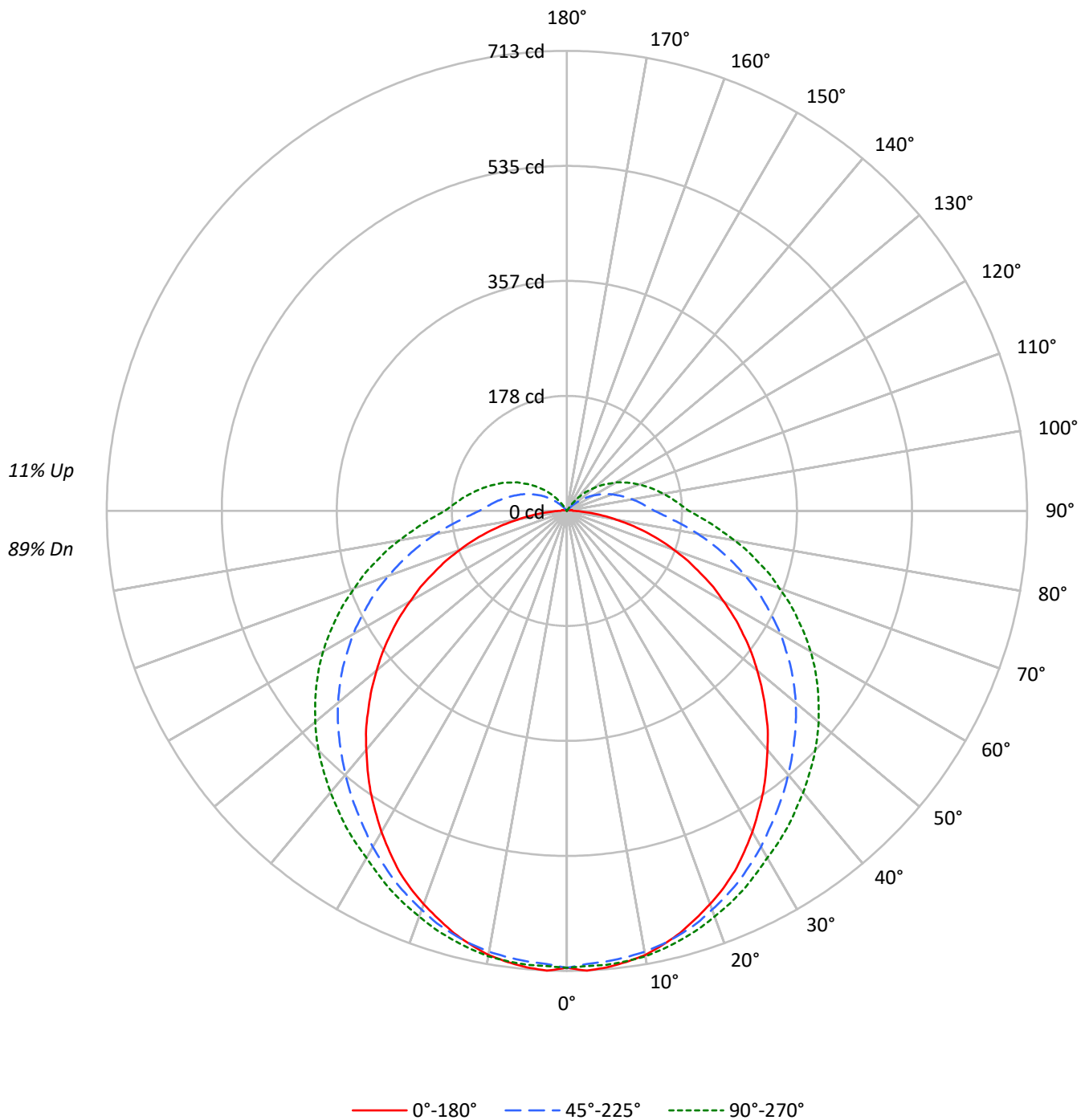
Lumens per Lamp: N/A
Luminaire Lumens: 2702.0 lumens
Efficiency: N/A
Efficacy: 75.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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

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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
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°	11209	11209	11209
5°	11285	11139	11220
10°	11234	11152	11268
15°	11099	11134	11268
20°	10926	11081	11271
25°	10755	11042	11311
30°	10504	10992	11349
35°	10253	10966	11542
40°	9989	11028	11770
45°	9740	11166	12109
50°	9479	11399	12535
55°	9204	11699	13084
60°	8871	12119	13809
65°	8532	12686	14761
70°	8169	13584	16199
75°	7718	15253	18770
80°	7019	18806	24047
85°	6702	30204	40629

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 74502 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.1	2.5
10°-20°	192.5	7.1
20°-30°	291.7	10.8
30°-40°	355.2	13.1
40°-50°	382.2	14.1
50°-60°	371.2	13.7
60°-70°	324.2	12.0
70°-80°	249.5	9.2
80°-90°	167.1	6.2
90°-100°	115.3	4.3
100°-110°	84.2	3.1
110°-120°	55.6	2.1
120°-130°	31.0	1.1
130°-140°	13.0	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°	551.4	20.4
0°-40°	906.6	33.6
0°-60°	1660.0	61.4
0°-90°	2400.8	88.9
90°-120°	255.1	9.4
90°-150°	301.2	11.1
90°-180°	301.0	11.1
0°-180°	2702.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	708	708	708	708	708	
5°	710	707	701	707	706	67
15°	677	679	679	689	688	191
25°	616	623	632	644	648	283
35°	531	548	568	590	597	332
45°	435	463	499	531	541	336
55°	334	370	424	461	474	298
65°	228	278	339	381	394	226
75°	126	184	249	294	307	134
85°	37	101	166	209	224	39
90°	10	70	136	176	189	7
95°	8	56	118	157	169	6
105°	5	35	88	124	136	6
115°	4	15	62	92	104	4
125°	2	2	35	63	72	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

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	708.1	708.1	708.1	708.1	708.1
2.5°	713.3	710.2	703.0	708.1	706.1
5°	710.2	707.1	701.0	707.1	706.1
7.5°	705.1	703.0	697.9	705.1	704.0
10°	698.9	696.8	693.8	702.0	701.0
12.5°	688.6	689.7	687.6	695.8	694.8
15°	677.3	679.4	679.4	688.6	687.6
17.5°	663.0	667.1	670.2	679.4	679.4
20°	648.6	653.7	657.8	669.1	669.1
22.5°	633.2	639.4	645.5	656.8	658.9
25°	615.8	623.0	632.2	644.5	647.6
27.5°	595.2	606.5	616.8	632.2	634.2
30°	574.7	588.1	601.4	617.8	620.9
32.5°	552.1	567.5	584.0	603.5	609.6
35°	530.6	548.0	567.5	590.1	597.3
37.5°	507.0	526.5	551.1	575.7	582.9
40°	483.4	506.0	533.7	560.4	569.6
42.5°	460.8	483.4	516.2	546.0	555.2
45°	435.1	462.9	498.8	530.6	540.9
47.5°	410.5	440.3	481.3	514.2	525.5
50°	384.9	416.7	462.9	497.7	509.0
52.5°	360.2	394.1	443.4	479.3	491.6
55°	333.5	370.5	423.9	460.8	474.1
57.5°	307.9	348.9	402.3	442.3	455.7
60°	280.2	324.3	382.8	421.8	436.2
62.5°	255.5	301.7	360.2	402.3	415.6
65°	227.8	278.1	338.7	380.8	394.1
67.5°	203.2	255.5	317.1	359.2	373.6
70°	176.5	229.9	293.5	337.6	350.0
72.5°	151.9	207.3	272.0	315.1	330.5
75°	126.2	183.7	249.4	293.5	306.9
77.5°	101.6	161.1	227.8	272.0	286.3
80°	77.0	139.6	206.3	249.4	263.8
82.5°	56.4	118.0	185.8	228.9	242.2
85°	36.9	100.6	166.3	209.4	223.7
87.5°	22.6	84.2	149.8	191.9	205.3
90°	10.3	69.8	135.5	176.5	188.8
92.5°	9.2	63.6	126.2	166.3	178.6
95°	8.2	56.4	118.0	157.0	169.3
97.5°	7.2	51.3	110.8	148.8	161.1
100°	7.2	45.2	102.6	140.6	151.9
102.5°	6.2	40.0	95.4	132.4	143.7
105°	5.1	34.9	88.3	124.2	135.5
107.5°	5.1	29.8	81.1	116.0	127.3
110°	4.1	24.6	74.9	107.8	119.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.1	20.5	67.7	100.6	111.9
115°	4.1	15.4	61.6	92.4	103.7
117.5°	3.1	11.3	54.4	85.2	95.4
120°	3.1	7.2	48.2	77.0	88.3
122.5°	3.1	4.1	42.1	69.8	79.0
125°	2.1	2.1	34.9	62.6	71.8
127.5°	2.1	1.0	28.7	54.4	63.6
130°	2.1	1.0	22.6	47.2	55.4
132.5°	2.1	1.0	16.4	40.0	48.2
135°	1.0	1.0	11.3	32.8	41.1
137.5°	1.0	1.0	6.2	25.7	32.8
140°	1.0	0.0	2.1	18.5	24.6
142.5°	1.0	0.0	0.0	12.3	17.4
145°	0.0	0.0	0.0	6.2	11.3
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	18.79	20.27	19.31	20.80	21.37	20.64	22.12	21.16	22.65	23.22
	3H	20.67	22.02	21.21	22.56	23.17	23.30	24.65	23.83	25.19	25.80
	4H	21.40	22.68	21.95	23.24	23.86	24.60	25.89	25.16	26.44	27.07
	6H	21.96	23.16	22.53	23.72	24.37	25.98	27.18	26.55	27.74	28.39
	8H	22.15	23.30	22.73	23.89	24.54	26.70	27.85	27.28	28.44	29.08
	12H	22.30	23.40	22.89	23.98	24.66	27.52	28.62	28.11	29.20	29.88
4H	2H	19.91	21.20	20.47	21.75	22.38	21.26	22.55	21.82	23.10	23.73
	3H	22.09	23.19	22.66	23.78	24.43	24.20	25.30	24.77	25.90	26.55
	4H	23.00	24.02	23.59	24.62	25.30	25.72	26.73	26.31	27.33	28.01
	6H	23.76	24.65	24.37	25.28	25.97	27.32	28.21	27.93	28.84	29.53
	8H	24.04	24.88	24.65	25.51	26.21	28.16	29.00	28.77	29.63	30.33
	12H	24.26	25.03	24.90	25.68	26.39	29.12	29.88	29.75	30.54	31.25
8H	4H	23.94	24.78	24.55	25.40	26.11	26.13	26.97	26.74	27.60	28.30
	6H	25.00	25.71	25.64	26.38	27.09	27.98	28.70	28.63	29.37	30.08
	8H	25.45	26.10	26.11	26.78	27.50	29.02	29.67	29.68	30.34	31.07
	12H	25.86	26.44	26.52	27.10	27.89	30.23	30.81	30.89	31.47	32.26
12H	4H	24.20	24.97	24.84	25.62	26.33	26.18	26.95	26.82	27.60	28.31
	6H	25.43	26.08	26.08	26.75	27.47	28.11	28.76	28.77	29.44	30.16
	8H	26.05	26.63	26.71	27.29	28.08	29.26	29.84	29.92	30.51	31.29