

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: P997646

Luminaire Tested: SA2XXDP-B675DB35-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997646
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-B675DB35-4F0-XX-W2A-D
Description: Define 2 Direct Recessed with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

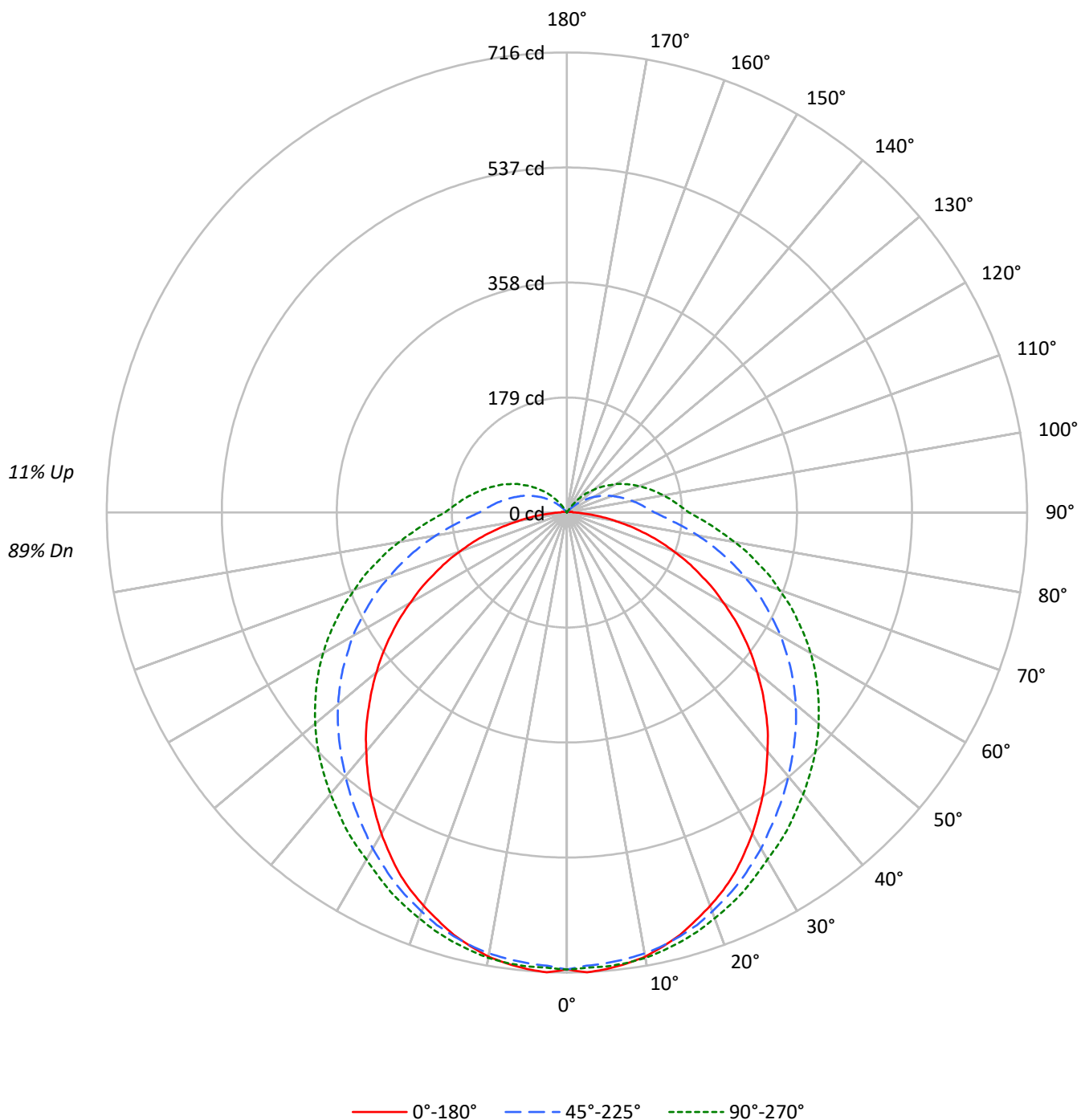
Lumens per Lamp: N/A
Luminaire Lumens: 2714.0 lumens
Efficiency: N/A
Efficacy: 75.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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°	11259	11259	11259
5°	11334	11188	11269
10°	11284	11200	11317
15°	11150	11183	11319
20°	10975	11131	11322
25°	10803	11091	11361
30°	10552	11042	11400
35°	10298	11017	11594
40°	10032	11076	11822
45°	9785	11215	12162
50°	9520	11449	12591
55°	9245	11748	13142
60°	8909	12173	13870
65°	8570	12742	14825
70°	8206	13644	16268
75°	7755	15320	18849
80°	7046	18888	24148
85°	6738	30331	40810

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 74829 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.4	2.5
10°-20°	193.4	7.1
20°-30°	293.0	10.8
30°-40°	356.8	13.1
40°-50°	383.9	14.1
50°-60°	372.8	13.7
60°-70°	325.6	12.0
70°-80°	250.6	9.2
80°-90°	167.8	6.2
90°-100°	115.8	4.3
100°-110°	84.6	3.1
110°-120°	55.8	2.1
120°-130°	31.1	1.1
130°-140°	13.1	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°	553.8	20.4
0°-40°	910.7	33.6
0°-60°	1667.4	61.4
0°-90°	2411.4	88.9
90°-120°	256.2	9.4
90°-150°	302.6	11.1
90°-180°	303.0	11.2
0°-180°	2714.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	711	711	711	711	711	
5°	713	710	704	710	709	68
15°	680	682	682	692	691	192
25°	618	626	635	647	650	284
35°	533	550	570	593	600	333
45°	437	465	501	533	543	337
55°	335	372	426	463	476	300
65°	229	279	340	382	396	227
75°	127	184	250	295	308	134
85°	37	101	167	210	225	39
90°	10	70	136	177	190	7
95°	8	57	118	158	170	6
105°	5	35	89	125	136	6
115°	4	16	62	93	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°	711.3	711.3	711.3	711.3	711.3
2.5°	716.4	713.3	706.1	711.3	709.2
5°	713.3	710.3	704.1	710.3	709.2
7.5°	708.2	706.1	701.0	708.2	707.2
10°	702.0	699.9	696.8	705.1	704.1
12.5°	691.7	692.7	690.7	698.9	697.9
15°	680.4	682.4	682.4	691.7	690.7
17.5°	665.9	670.0	673.1	682.4	682.4
20°	651.5	656.6	660.8	672.1	672.1
22.5°	636.0	642.2	648.4	659.7	661.8
25°	618.5	625.7	635.0	647.4	650.5
27.5°	597.9	609.2	619.5	635.0	637.1
30°	577.3	590.7	604.1	620.6	623.7
32.5°	554.6	570.1	586.5	606.1	612.3
35°	532.9	550.5	570.1	592.7	600.0
37.5°	509.2	528.8	553.6	578.3	585.5
40°	485.5	508.2	536.0	562.8	572.1
42.5°	462.8	485.5	518.5	548.4	557.7
45°	437.1	464.9	501.0	532.9	543.3
47.5°	412.3	442.2	483.5	516.5	527.8
50°	386.6	418.5	464.9	500.0	511.3
52.5°	361.8	395.8	445.3	481.4	493.8
55°	335.0	372.1	425.7	462.8	476.2
57.5°	309.3	350.5	404.1	444.3	457.7
60°	281.4	325.7	384.5	423.7	438.1
62.5°	256.7	303.1	361.8	404.1	417.5
65°	228.8	279.4	340.2	382.4	395.8
67.5°	204.1	256.7	318.5	360.8	375.2
70°	177.3	230.9	294.8	339.1	351.5
72.5°	152.6	208.2	273.2	316.5	331.9
75°	126.8	184.5	250.5	294.8	308.2
77.5°	102.1	161.8	228.8	273.2	287.6
80°	77.3	140.2	207.2	250.5	264.9
82.5°	56.7	118.5	186.6	229.9	243.3
85°	37.1	101.0	167.0	210.3	224.7
87.5°	22.7	84.5	150.5	192.8	206.2
90°	10.3	70.1	136.1	177.3	189.7
92.5°	9.3	63.9	126.8	167.0	179.4
95°	8.2	56.7	118.5	157.7	170.1
97.5°	7.2	51.5	111.3	149.5	161.8
100°	7.2	45.4	103.1	141.2	152.6
102.5°	6.2	40.2	95.9	133.0	144.3
105°	5.2	35.0	88.7	124.7	136.1
107.5°	5.2	29.9	81.4	116.5	127.8
110°	4.1	24.7	75.3	108.2	119.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.1	20.6	68.0	101.0	112.4
115°	4.1	15.5	61.9	92.8	104.1
117.5°	3.1	11.3	54.6	85.6	95.9
120°	3.1	7.2	48.4	77.3	88.7
122.5°	3.1	4.1	42.3	70.1	79.4
125°	2.1	2.1	35.0	62.9	72.2
127.5°	2.1	1.0	28.9	54.6	63.9
130°	2.1	1.0	22.7	47.4	55.7
132.5°	2.1	1.0	16.5	40.2	48.4
135°	1.0	1.0	11.3	33.0	41.2
137.5°	1.0	1.0	6.2	25.8	33.0
140°	1.0	0.0	2.1	18.6	24.7
142.5°	1.0	0.0	0.0	12.4	17.5
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	18.80	20.28	19.33	20.81	21.39	20.65	22.13	21.18	22.66	23.24
	3H	20.68	22.04	21.22	22.57	23.19	23.31	24.67	23.85	25.20	25.82
	4H	21.41	22.70	21.97	23.25	23.88	24.62	25.90	25.18	26.46	27.09
	6H	21.97	23.17	22.54	23.74	24.38	25.99	27.19	26.57	27.76	28.40
	8H	22.17	23.32	22.75	23.91	24.56	26.71	27.86	27.30	28.45	29.10
	12H	22.32	23.42	22.91	24.00	24.68	27.53	28.63	28.12	29.22	29.90
4H	2H	19.93	21.21	20.49	21.76	22.39	21.28	22.57	21.84	23.12	23.75
	3H	22.10	23.21	22.68	23.80	24.45	24.22	25.32	24.79	25.91	26.56
	4H	23.02	24.03	23.61	24.63	25.31	25.74	26.75	26.33	27.35	28.03
	6H	23.77	24.67	24.38	25.29	25.99	27.33	28.23	27.94	28.85	29.55
	8H	24.05	24.90	24.67	25.52	26.23	28.17	29.02	28.79	29.64	30.35
	12H	24.28	25.04	24.91	25.70	26.41	29.13	29.90	29.77	30.55	31.26
8H	4H	23.95	24.79	24.57	25.42	26.13	26.14	26.99	26.76	27.61	28.32
	6H	25.01	25.73	25.66	26.39	27.11	28.00	28.72	28.64	29.38	30.09
	8H	25.47	26.12	26.13	26.79	27.51	29.04	29.69	29.70	30.36	31.08
	12H	25.87	26.45	26.54	27.12	27.90	30.25	30.83	30.91	31.49	32.28
12H	4H	24.22	24.99	24.85	25.64	26.35	26.20	26.96	26.83	27.62	28.33
	6H	25.44	26.09	26.10	26.77	27.49	28.13	28.78	28.79	29.45	30.17
	8H	26.06	26.64	26.72	27.31	28.09	29.28	29.86	29.94	30.52	31.31