

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: P997625

Luminaire Tested: SA2XXDP-B675DB27-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997625
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-B675DB27-4F0-XX-W2A-D
Description: Define 2 Direct Recessed with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

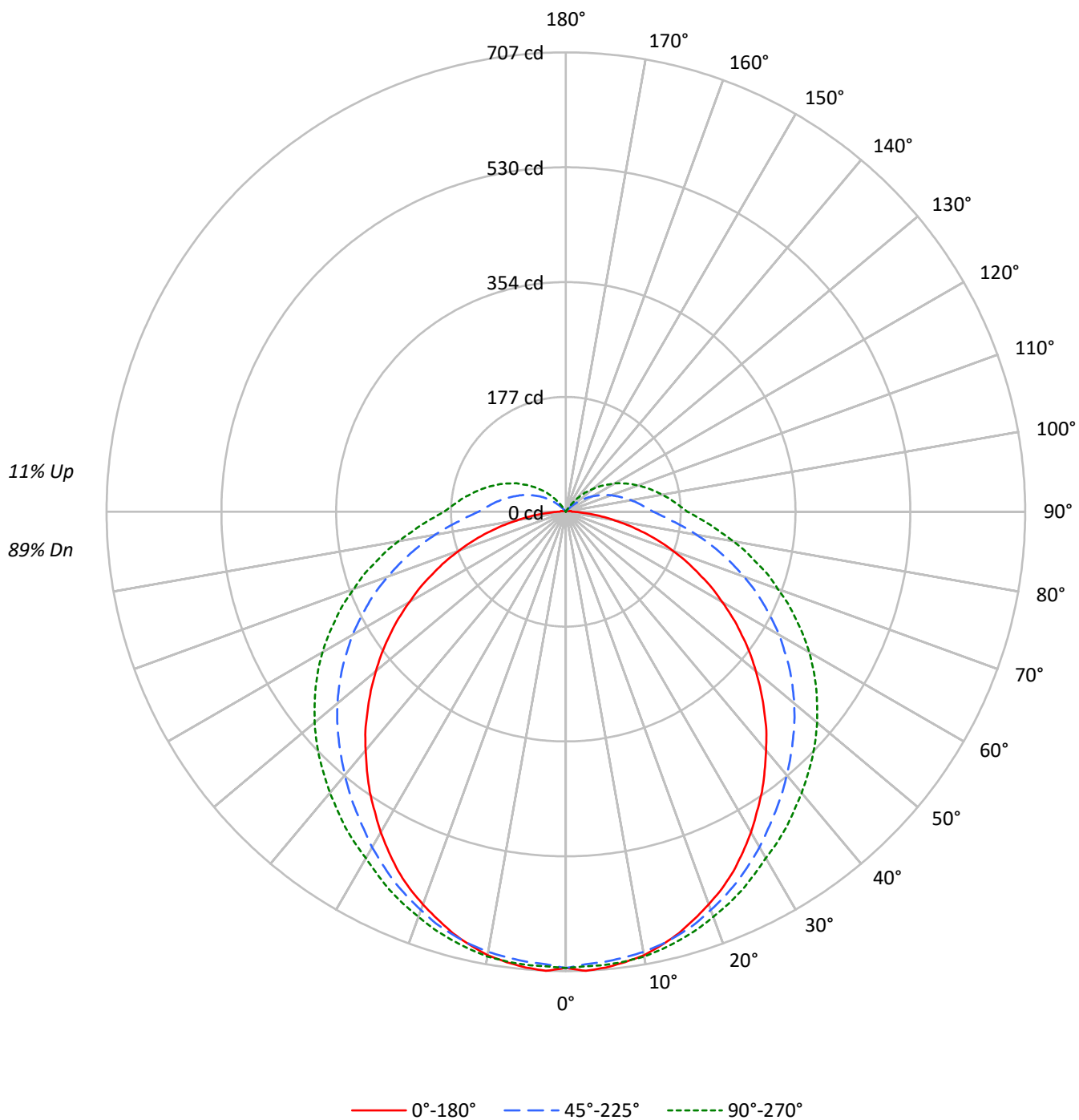
Lumens per Lamp: N/A
Luminaire Lumens: 2679.0 lumens
Efficiency: N/A
Efficacy: 74.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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
RCR																	
0	116	116	116	116	112	112	112	112	105	105	105		98	98	98		92
1	104	98	93	88	100	95	90	86	88	85	81		82	79	77		77
2	94	84	77	70	90	81	74	68	76	70	65		71	66	62		66
3	85	73	64	57	81	71	63	56	66	59	54		62	56	51		58
4	77	64	55	48	74	62	54	47	58	51	45		55	48	43		51
5	71	57	48	41	68	56	47	40	52	44	39		49	42	37		46
6	65	51	42	35	63	50	41	35	47	39	34		44	37	32		42
7	60	46	37	31	58	45	37	31	43	35	30		40	34	29		38
8	56	42	34	28	54	41	33	27	39	32	26		37	30	25		35
9	52	39	30	25	50	38	30	24	36	29	24		34	27	23		32
10	49	36	28	22	47	35	27	22	33	26	21		31	25	21		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11114	11114	11114
5°	11188	11043	11124
10°	11139	11057	11171
15°	11006	11039	11173
20°	10833	10986	11175
25°	10663	10947	11215
30°	10415	10899	11252
35°	10166	10874	11444
40°	9904	10933	11669
45°	9657	11070	12003
50°	9397	11301	12429
55°	9126	11596	12974
60°	8795	12014	13692
65°	8461	12577	14634
70°	8099	13468	16060
75°	7657	15125	18605
80°	6955	18642	23838
85°	6647	29931	40283

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 73849 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.6	2.5
10°-20°	190.9	7.1
20°-30°	289.2	10.8
30°-40°	352.2	13.1
40°-50°	379.0	14.1
50°-60°	368.0	13.7
60°-70°	321.4	12.0
70°-80°	247.4	9.2
80°-90°	165.7	6.2
90°-100°	114.3	4.3
100°-110°	83.5	3.1
110°-120°	55.1	2.1
120°-130°	30.7	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°	546.7	20.4
0°-40°	898.9	33.6
0°-60°	1645.9	61.4
0°-90°	2380.3	88.9
90°-120°	252.9	9.4
90°-150°	298.7	11.1
90°-180°	299.0	11.2
0°-180°	2679.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	702	702	702	702	702	
5°	704	701	695	701	700	67
15°	672	674	674	683	682	189
25°	610	618	627	639	642	281
35°	526	543	563	585	592	329
45°	431	459	494	526	536	333
55°	331	367	420	457	470	296
65°	226	276	336	378	391	224
75°	125	182	247	291	304	132
85°	37	100	165	208	222	39
90°	10	69	134	175	187	7
95°	8	56	117	156	168	6
105°	5	35	88	123	134	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

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	702.1	702.1	702.1	702.1	702.1
2.5°	707.2	704.1	697.0	702.1	700.1
5°	704.1	701.1	695.0	701.1	700.1
7.5°	699.1	697.0	691.9	699.1	698.0
10°	693.0	690.9	687.9	696.0	695.0
12.5°	682.8	683.8	681.8	689.9	688.9
15°	671.6	673.6	673.6	682.8	681.8
17.5°	657.3	661.4	664.5	673.6	673.6
20°	643.1	648.2	652.2	663.4	663.4
22.5°	627.8	633.9	640.0	651.2	653.3
25°	610.5	617.7	626.8	639.0	642.1
27.5°	590.2	601.4	611.5	626.8	628.8
30°	569.8	583.1	596.3	612.6	615.6
32.5°	547.4	562.7	579.0	598.3	604.4
35°	526.1	543.4	562.7	585.1	592.2
37.5°	502.7	522.0	546.4	570.8	578.0
40°	479.3	501.7	529.1	555.6	564.7
42.5°	456.9	479.3	511.8	541.3	550.5
45°	431.4	458.9	494.5	526.1	536.2
47.5°	407.0	436.5	477.2	509.8	521.0
50°	381.6	413.1	458.9	493.5	504.7
52.5°	357.2	390.7	439.6	475.2	487.4
55°	330.7	367.3	420.2	456.9	470.1
57.5°	305.3	346.0	398.9	438.6	451.8
60°	277.8	321.5	379.5	418.2	432.5
62.5°	253.4	299.2	357.2	398.9	412.1
65°	225.9	275.8	335.8	377.5	390.7
67.5°	201.5	253.4	314.4	356.1	370.4
70°	175.0	227.9	291.0	334.8	347.0
72.5°	150.6	205.5	269.7	312.4	327.7
75°	125.2	182.1	247.3	291.0	304.2
77.5°	100.7	159.8	225.9	269.7	283.9
80°	76.3	138.4	204.5	247.3	261.5
82.5°	56.0	117.0	184.2	226.9	240.1
85°	36.6	99.7	164.8	207.6	221.8
87.5°	22.4	83.4	148.6	190.3	203.5
90°	10.2	69.2	134.3	175.0	187.2
92.5°	9.2	63.1	125.2	164.8	177.1
95°	8.1	56.0	117.0	155.7	167.9
97.5°	7.1	50.9	109.9	147.5	159.8
100°	7.1	44.8	101.8	139.4	150.6
102.5°	6.1	39.7	94.6	131.3	142.5
105°	5.1	34.6	87.5	123.1	134.3
107.5°	5.1	29.5	80.4	115.0	126.2
110°	4.1	24.4	74.3	106.8	118.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.1	20.4	67.2	99.7	110.9
115°	4.1	15.3	61.1	91.6	102.8
117.5°	3.1	11.2	53.9	84.5	94.6
120°	3.1	7.1	47.8	76.3	87.5
122.5°	3.1	4.1	41.7	69.2	78.4
125°	2.0	2.0	34.6	62.1	71.2
127.5°	2.0	1.0	28.5	53.9	63.1
130°	2.0	1.0	22.4	46.8	54.9
132.5°	2.0	1.0	16.3	39.7	47.8
135°	1.0	1.0	11.2	32.6	40.7
137.5°	1.0	1.0	6.1	25.4	32.6
140°	1.0	0.0	2.0	18.3	24.4
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	18.76	20.24	19.28	20.77	21.35	20.61	22.09	21.13	22.62	23.20
	3H	20.64	21.99	21.18	22.53	23.15	23.27	24.62	23.81	25.16	25.77
	4H	21.37	22.65	21.93	23.21	23.84	24.57	25.86	25.13	26.41	27.04
	6H	21.93	23.13	22.50	23.69	24.34	25.95	27.15	26.52	27.71	28.36
	8H	22.12	23.27	22.71	23.86	24.51	26.67	27.82	27.25	28.41	29.05
	12H	22.27	23.37	22.86	23.96	24.64	27.49	28.59	28.08	29.17	29.85
4H	2H	19.88	21.17	20.44	21.72	22.35	21.24	22.52	21.80	23.07	23.70
	3H	22.06	23.16	22.63	23.75	24.40	24.17	25.27	24.75	25.87	26.52
	4H	22.97	23.99	23.57	24.59	25.27	25.69	26.70	26.28	27.30	27.98
	6H	23.73	24.62	24.34	25.25	25.94	27.29	28.18	27.90	28.81	29.50
	8H	24.01	24.85	24.62	25.48	26.18	28.13	28.97	28.74	29.60	30.30
	12H	24.23	25.00	24.87	25.65	26.36	29.09	29.85	29.72	30.51	31.22
8H	4H	23.91	24.75	24.52	25.38	26.08	26.10	26.94	26.71	27.57	28.27
	6H	24.97	25.68	25.61	26.35	27.06	27.95	28.67	28.60	29.34	30.05
	8H	25.43	26.07	26.08	26.75	27.47	28.99	29.64	29.65	30.31	31.04
	12H	25.83	26.41	26.49	27.07	27.86	30.20	30.78	30.86	31.44	32.23
12H	4H	24.17	24.94	24.81	25.59	26.30	26.15	26.92	26.79	27.57	28.28
	6H	25.40	26.05	26.06	26.72	27.44	28.08	28.73	28.74	29.41	30.13
	8H	26.02	26.60	26.68	27.26	28.05	29.23	29.81	29.89	30.48	31.26