

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1055234

Luminaire Tested: S122R3DR-S675D850-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055234
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-3)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-S675D850-X4F0-XX-UDD-F-S
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

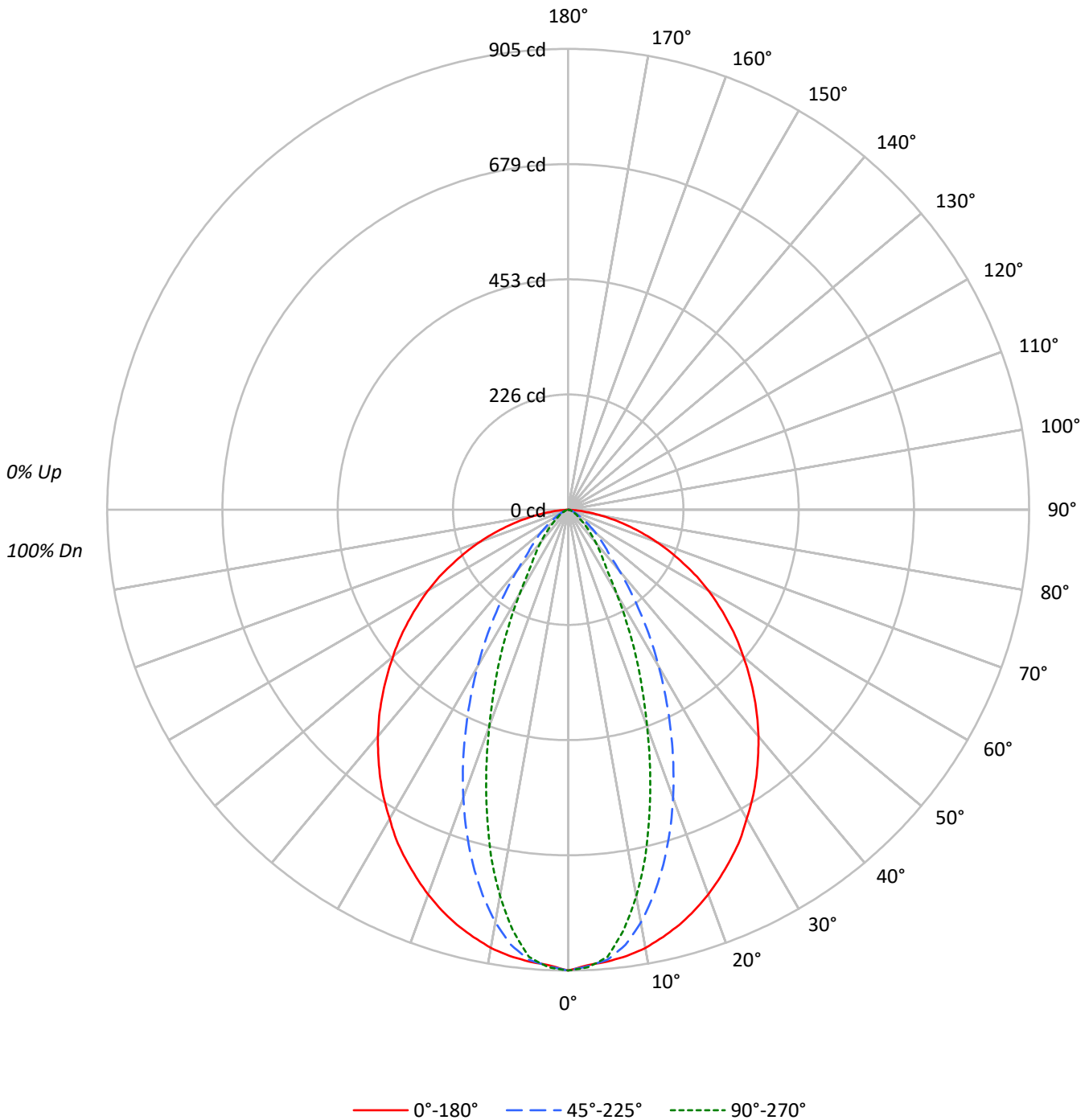
Lumens per Lamp: N/A
Luminaire Lumens: 1037.1 lumens
Efficiency: N/A
Efficacy: 39.3 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): 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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90					90			
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80					80			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71					71			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64					64			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58					58			
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53					53			
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49					49			
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47	45					45			
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42					42			
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39					39			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17144	17144	17144
5°	16936	16873	16768
10°	16812	15831	14829
15°	16552	14161	12094
20°	16210	12141	9123
25°	15810	9946	6514
30°	15333	7764	4148
35°	14876	5694	2771
40°	14372	3841	2085
45°	13817	2703	1484
50°	13237	2060	1046
55°	12674	1430	770
60°	12061	966	629
65°	11185	695	498
70°	10198	554	432
75°	8850	490	322
80°	7015	360	360
85°	3848	478	239

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13817 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.7	8.0
10°-20°	203.1	19.6
20°-30°	232.0	22.4
30°-40°	196.7	19.0
40°-50°	146.8	14.2
50°-60°	94.9	9.1
60°-70°	52.9	5.1
70°-80°	23.2	2.2
80°-90°	4.8	0.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	517.8	49.9
0°-40°	714.5	68.9
0°-60°	956.2	92.2
0°-90°	1037.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1037.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	905	905	905	905	905	
5°	890	902	887	878	882	85
15°	844	823	722	645	617	238
25°	756	668	476	348	312	348
35°	643	485	246	134	120	402
45°	516	306	101	65	55	398
55°	384	145	43	27	23	343
65°	250	53	16	12	11	248
75°	121	11	7	6	4	129
85°	18	1	2	1	1	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	904.9	904.9	904.9	904.9	904.9
2.5°	895.0	908.3	897.2	897.2	899.4
5°	890.5	901.6	887.2	878.3	881.7
7.5°	883.9	891.6	861.7	835.1	832.9
10°	873.9	877.2	822.9	781.8	770.8
12.5°	859.5	851.7	775.2	717.5	698.7
15°	843.9	822.9	722.0	645.4	616.6
17.5°	825.1	787.4	663.2	570.0	534.5
20°	804.0	750.8	602.2	491.3	452.5
22.5°	780.7	709.8	539.0	417.0	378.2
25°	756.3	667.6	475.8	348.2	311.6
27.5°	730.8	623.3	413.7	286.1	246.2
30°	700.9	577.8	354.9	226.2	189.6
32.5°	673.2	530.1	300.5	175.2	144.2
35°	643.2	484.6	246.2	134.2	119.8
37.5°	612.2	439.2	198.5	113.1	100.9
40°	581.1	393.7	155.3	95.4	84.3
42.5°	549.0	349.3	119.8	79.8	68.8
45°	515.7	306.1	100.9	65.4	55.4
47.5°	482.4	262.8	84.3	52.1	44.4
50°	449.1	221.8	69.9	41.0	35.5
52.5°	417.0	183.0	55.4	33.3	28.8
55°	383.7	145.3	43.3	26.6	23.3
57.5°	350.4	113.1	33.3	22.2	20.0
60°	318.3	85.4	25.5	17.7	16.6
62.5°	285.0	68.8	20.0	14.4	13.3
65°	249.5	53.2	15.5	12.2	11.1
67.5°	217.4	38.8	12.2	10.0	8.9
70°	184.1	26.6	10.0	8.9	7.8
72.5°	151.9	16.6	7.8	6.7	6.7
75°	120.9	11.1	6.7	5.5	4.4
77.5°	92.0	6.7	4.4	4.4	3.3
80°	64.3	4.4	3.3	3.3	3.3
82.5°	39.9	3.3	2.2	2.2	2.2
85°	17.7	1.1	2.2	1.1	1.1
87.5°	3.3	1.1	1.1	1.1	1.1
90°	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	18.12	19.44	18.49	19.76	20.07	4.44	5.76	4.81	6.07	6.39
	3H	20.59	21.77	20.97	22.10	22.46	5.29	6.47	5.67	6.80	7.16
	4H	21.55	22.64	21.95	22.99	23.38	5.57	6.66	5.97	7.01	7.39
	6H	22.24	23.24	22.65	23.61	24.00	5.75	6.76	6.17	7.13	7.52
	8H	22.43	23.38	22.86	23.77	24.18	5.83	6.78	6.26	7.17	7.57
	12H	22.51	23.42	22.95	23.81	24.24	5.85	6.76	6.28	7.14	7.57
4H	2H	17.91	19.00	18.31	19.35	19.73	5.01	6.10	5.41	6.45	6.84
	3H	20.39	21.29	20.81	21.69	22.10	6.05	6.94	6.46	7.35	7.75
	4H	21.34	22.14	21.77	22.56	23.00	6.41	7.21	6.84	7.63	8.07
	6H	22.09	22.78	22.55	23.23	23.69	6.70	7.39	7.16	7.83	8.30
	8H	22.33	22.98	22.80	23.43	23.90	6.79	7.44	7.26	7.88	8.36
	12H	22.46	23.03	22.95	23.51	23.99	6.84	7.41	7.32	7.89	8.36
8H	4H	21.20	21.85	21.67	22.30	22.77	6.78	7.43	7.25	7.87	8.34
	6H	21.94	22.47	22.44	22.96	23.44	7.13	7.66	7.64	8.16	8.64
	8H	22.19	22.66	22.71	23.17	23.66	7.27	7.74	7.79	8.26	8.75
	12H	22.34	22.75	22.85	23.25	23.82	7.35	7.77	7.87	8.26	8.83
12H	4H	21.16	21.73	21.65	22.21	22.69	6.90	7.47	7.39	7.95	8.43
	6H	21.88	22.35	22.40	22.87	23.36	7.25	7.72	7.77	8.24	8.73
	8H	22.15	22.56	22.66	23.05	23.63	7.43	7.84	7.94	8.34	8.91