

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: P1058226

Luminaire Tested: S122RDR-H1005D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058226
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-56)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H1005D850-X4F0-XX-UDD-SVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

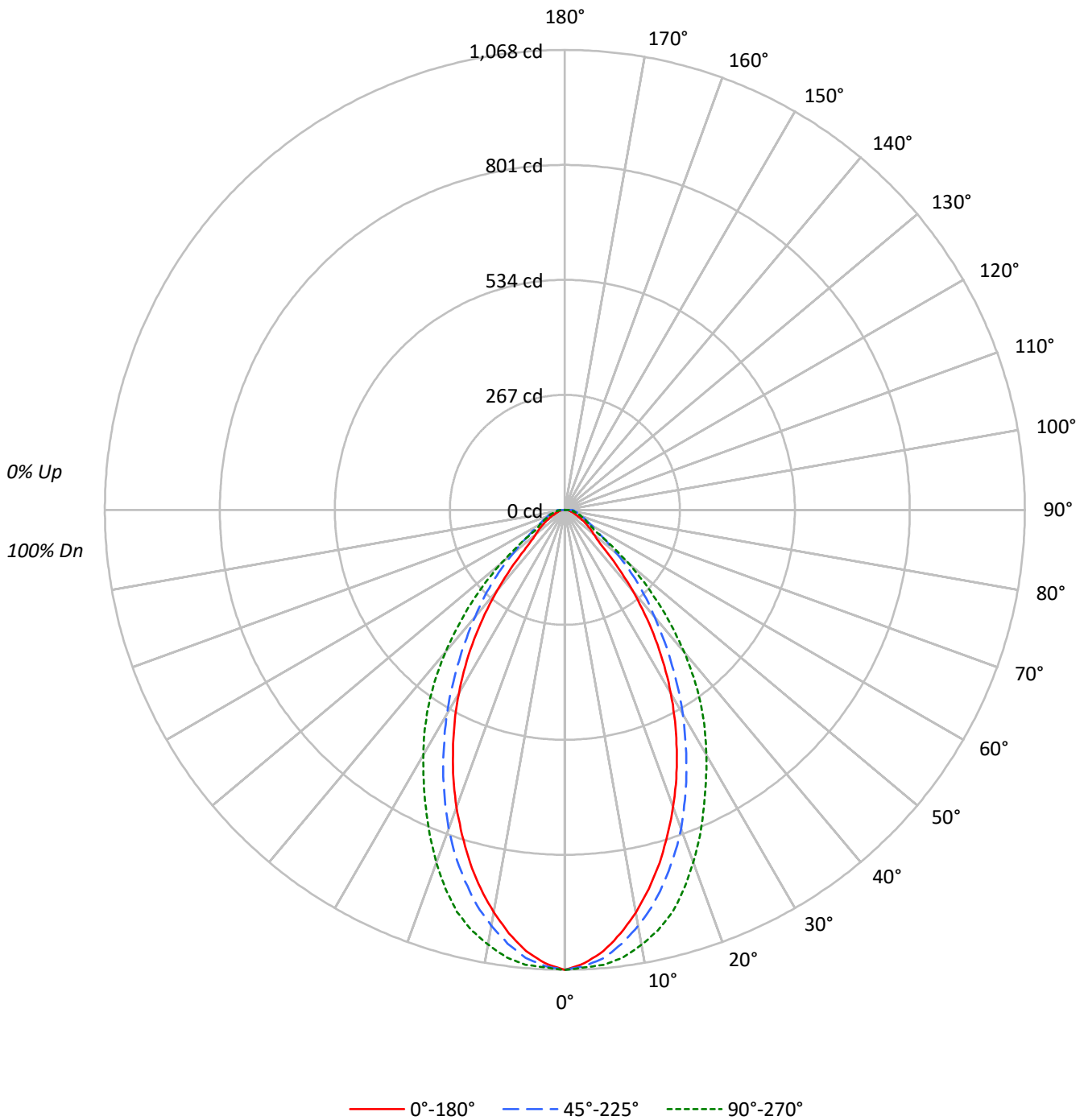
Lumens per Lamp: N/A
Luminaire Lumens: 1295.6 lumens
Efficiency: N/A
Efficacy: 35.5 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
Input Voltage (V): 120
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	0
RW	70	50	30	10	70	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
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19711	19711	19711
5°	19051	19344	19638
10°	17783	18379	19211
15°	16221	17071	18465
20°	14431	15489	17109
25°	12505	13605	15543
30°	10483	11668	14001
35°	8258	9653	12405
40°	5887	7800	10360
45°	3479	6172	8035
50°	2506	4464	5469
55°	2094	3217	2757
60°	1698	2576	2343
65°	1384	2288	2148
70°	1198	2228	2056
75°	1134	2260	2039
80°	1180	2699	2189
85°	1673	4361	2689

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8035 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.0	7.6
10°-20°	251.7	19.4
20°-30°	310.5	24.0
30°-40°	276.2	21.3
40°-50°	176.3	13.6
50°-60°	84.7	6.5
60°-70°	49.7	3.8
70°-80°	31.7	2.4
80°-90°	16.9	1.3
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°	660.2	51.0
0°-40°	936.3	72.3
0°-60°	1197.3	92.4
0°-90°	1295.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1295.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1068	1068	1068	1068	1068	
5°	1028	1048	1044	1051	1060	96
15°	849	870	894	935	967	237
25°	614	638	668	716	763	281
35°	367	395	428	494	551	228
45°	133	173	236	275	308	112
55°	65	84	100	97	86	59
65°	32	57	52	48	49	32
75°	16	35	32	30	29	17
85°	8	19	21	18	13	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1068.2	1068.2	1068.2	1068.2	1068.2
2.5°	1053.9	1071.3	1060.2	1060.2	1063.4
5°	1028.5	1047.5	1044.3	1050.7	1060.2
7.5°	992.0	1012.6	1015.8	1033.2	1047.5
10°	949.1	971.3	980.9	1006.3	1025.3
12.5°	901.5	923.7	941.2	972.9	999.9
15°	849.1	869.8	893.6	934.8	966.6
17.5°	792.0	819.0	842.8	885.6	922.1
20°	734.9	760.2	788.8	830.1	871.3
22.5°	676.1	699.9	728.5	771.4	819.0
25°	614.2	638.0	668.2	715.8	763.4
27.5°	553.9	577.7	606.3	658.7	709.5
30°	492.0	515.8	547.6	601.5	657.1
32.5°	430.1	455.5	487.3	546.0	604.7
35°	366.6	395.2	428.5	493.6	550.7
37.5°	304.7	333.3	374.6	438.1	492.0
40°	244.4	277.8	323.8	380.9	430.1
42.5°	185.7	222.2	279.3	325.4	368.2
45°	133.3	173.0	236.5	274.6	307.9
47.5°	101.6	130.1	195.2	225.4	249.2
50°	87.3	104.8	155.5	177.8	190.5
52.5°	76.2	92.1	123.8	134.9	134.9
55°	65.1	84.1	100.0	96.8	85.7
57.5°	55.6	76.2	82.5	69.8	73.0
60°	46.0	69.8	69.8	61.9	63.5
62.5°	38.1	65.1	60.3	54.0	55.6
65°	31.7	57.1	52.4	47.6	49.2
67.5°	25.4	50.8	46.0	42.9	42.9
70°	22.2	46.0	41.3	38.1	38.1
72.5°	19.0	39.7	36.5	33.3	33.3
75°	15.9	34.9	31.7	30.2	28.6
77.5°	14.3	30.2	28.6	25.4	23.8
80°	11.1	25.4	25.4	23.8	20.6
82.5°	9.5	22.2	22.2	20.6	17.5
85°	7.9	19.0	20.6	17.5	12.7
87.5°	6.3	17.5	17.5	14.3	9.5
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	12.03	13.31	12.40	13.62	13.94	11.82	13.09	12.18	13.41	13.72
	3H	13.26	14.40	13.64	14.73	15.09	13.41	14.55	13.79	14.88	15.24
	4H	13.71	14.77	14.12	15.12	15.51	14.13	15.19	14.53	15.54	15.92
	6H	14.09	15.07	14.51	15.44	15.83	14.78	15.75	15.20	16.12	16.52
	8H	14.25	15.17	14.68	15.56	15.97	15.11	16.03	15.54	16.42	16.83
	12H	14.40	15.29	14.84	15.67	16.10	15.41	16.29	15.84	16.67	17.10
4H	2H	12.58	13.64	12.98	13.99	14.37	12.41	13.47	12.81	13.82	14.20
	3H	14.27	15.15	14.69	15.55	15.95	14.25	15.12	14.66	15.53	15.93
	4H	15.07	15.85	15.50	16.27	16.71	15.12	15.91	15.56	16.33	16.77
	6H	15.71	16.39	16.18	16.84	17.30	15.97	16.65	16.43	17.09	17.56
	8H	15.96	16.59	16.43	17.04	17.51	16.39	17.03	16.86	17.47	17.94
	12H	16.21	16.77	16.69	17.25	17.72	16.80	17.36	17.28	17.84	18.31
8H	4H	15.49	16.12	15.96	16.57	17.04	15.54	16.18	16.01	16.62	17.09
	6H	16.47	16.98	16.97	17.48	17.96	16.63	17.15	17.13	17.64	18.12
	8H	16.96	17.42	17.48	17.94	18.43	17.22	17.68	17.74	18.20	18.69
	12H	17.46	17.87	17.97	18.36	18.93	17.82	18.23	18.34	18.73	19.30
12H	4H	15.55	16.11	16.04	16.60	17.07	15.62	16.18	16.10	16.66	17.13
	6H	16.63	17.10	17.16	17.62	18.11	16.79	17.26	17.31	17.77	18.27
	8H	17.27	17.68	17.78	18.18	18.75	17.50	17.91	18.02	18.41	18.98