

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: P1057985

Luminaire Tested: S122RDRP-S485D850-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057985
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S485D850-X4F0-XX-UDD-WVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

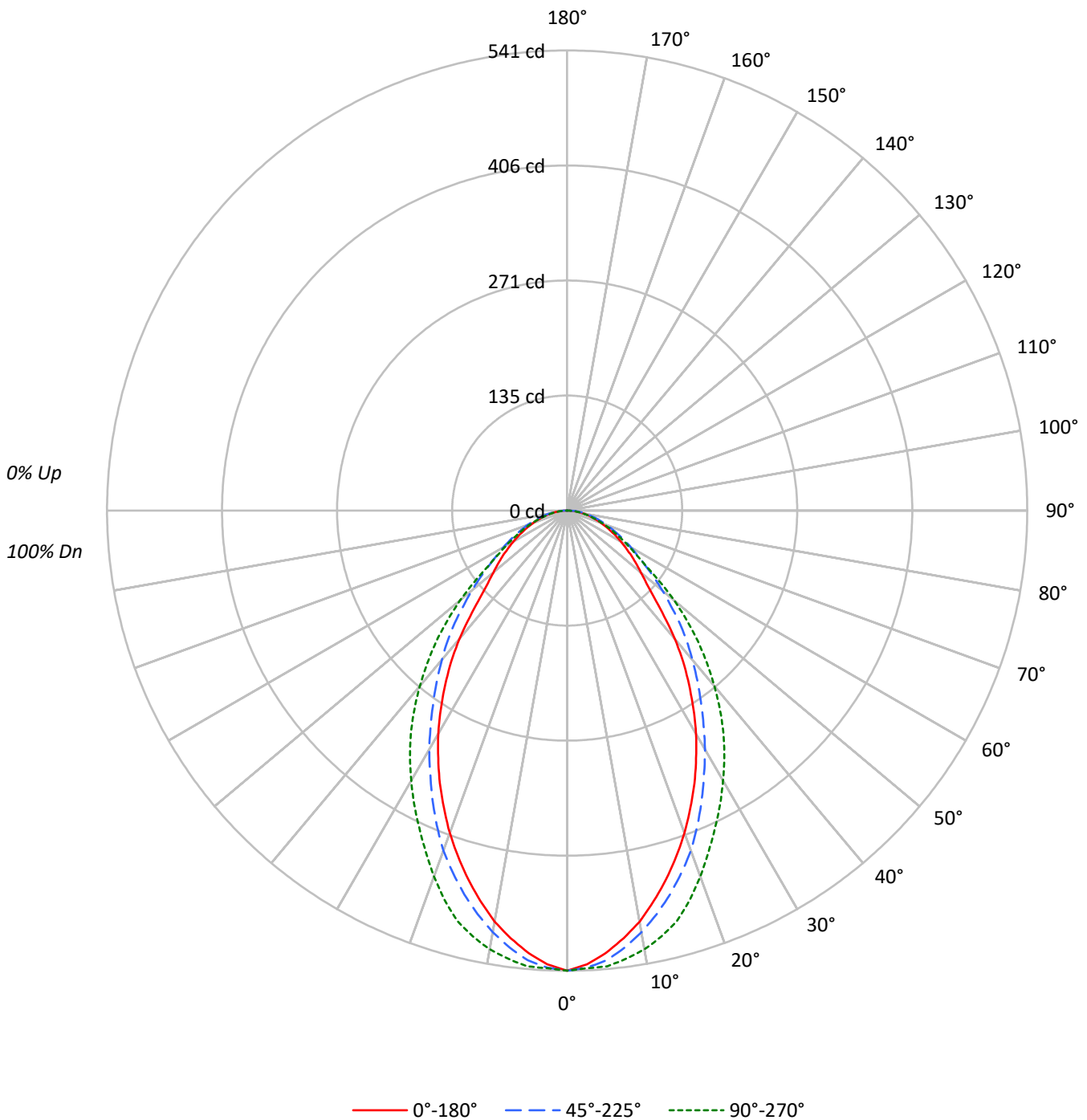
Lumens per Lamp: N/A
Luminaire Lumens: 880.9 lumens
Efficiency: N/A
Efficacy: 44.9 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
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	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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87																												
2	102	95	89	84	100	93	88	83	90	85	81	86	83	79	84	80	78	76																												
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66																												
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	59																												
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52																												
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47																												
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43																												
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39																												
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36																												
10	59	47	40	35	58	46	39	35	45	39	35	45	39	34	44	38	34	33																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9981	9981	9981
5°	9671	9830	9962
10°	9194	9429	9813
15°	8579	8923	9538
20°	7923	8355	8988
25°	7209	7625	8376
30°	6456	6908	7811
35°	5625	6172	7215
40°	4748	5521	6487
45°	3771	4877	5676
50°	3247	4191	4711
55°	2957	3587	3613
60°	2694	3189	3070
65°	2467	2877	2707
70°	2288	2671	2417
75°	2125	2517	2125
80°	1998	2423	1923
85°	1990	2498	1673

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5676 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.9	5.7
10°-20°	132.0	15.0
20°-30°	173.7	19.7
30°-40°	174.7	19.8
40°-50°	141.6	16.1
50°-60°	97.5	11.1
60°-70°	63.8	7.2
70°-80°	35.6	4.0
80°-90°	12.0	1.4
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°	355.7	40.4
0°-40°	530.3	60.2
0°-60°	769.4	87.3
0°-90°	880.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	880.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	541	541	541	541	541	
5°	522	532	531	533	538	49
15°	449	460	467	484	499	126
25°	354	364	374	391	411	162
35°	250	261	274	298	320	156
45°	144	161	187	203	218	114
55°	92	102	112	114	112	82
65°	56	68	66	63	62	56
75°	30	37	35	31	30	32
85°	9	13	12	10	8	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	540.9	540.9	540.9	540.9	540.9
2.5°	533.9	543.3	537.8	537.8	538.6
5°	522.1	532.3	530.7	533.1	537.8
7.5°	507.2	518.2	518.2	525.2	531.5
10°	490.7	501.7	503.2	514.2	523.7
12.5°	470.3	481.3	486.0	500.1	512.7
15°	449.1	460.1	467.1	484.4	499.3
17.5°	426.3	437.3	446.7	464.8	479.7
20°	403.5	413.7	425.5	441.2	457.7
22.5°	378.4	389.4	400.4	415.3	434.2
25°	354.1	363.5	374.5	391.0	411.4
27.5°	328.2	338.4	348.6	368.2	389.4
30°	303.0	313.3	324.2	344.7	366.6
32.5°	276.4	287.3	298.3	321.1	343.9
35°	249.7	261.4	274.0	298.3	320.3
37.5°	223.8	236.3	251.2	276.4	295.2
40°	197.1	210.4	229.2	251.2	269.3
42.5°	168.8	185.3	208.1	226.9	243.4
45°	144.5	160.9	186.9	203.3	217.5
47.5°	126.4	139.7	164.9	179.0	190.8
50°	113.1	123.3	146.0	156.2	164.1
52.5°	102.1	112.3	128.0	135.0	137.4
55°	91.9	102.1	111.5	113.8	112.3
57.5°	81.7	92.6	98.1	95.8	95.8
60°	73.0	84.8	86.4	83.2	83.2
62.5°	64.4	76.2	76.2	72.2	72.2
65°	56.5	67.5	65.9	62.8	62.0
67.5°	49.5	59.7	57.3	54.2	53.4
70°	42.4	51.8	49.5	45.5	44.8
72.5°	36.1	44.8	41.6	38.5	36.9
75°	29.8	36.9	35.3	31.4	29.8
77.5°	24.3	29.8	28.3	25.1	23.6
80°	18.8	23.6	22.8	19.6	18.1
82.5°	14.1	18.1	17.3	14.9	12.6
85°	9.4	12.6	11.8	10.2	7.9
87.5°	4.7	8.6	7.9	7.1	3.9
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	14.72	16.16	15.09	16.47	16.79	15.08	16.52	15.45	16.84	17.15
	3H	16.27	17.56	16.65	17.89	18.25	16.43	17.72	16.81	18.05	18.41
	4H	16.84	18.05	17.24	18.40	18.78	16.91	18.12	17.31	18.47	18.85
	6H	17.27	18.38	17.68	18.75	19.14	17.27	18.38	17.68	18.75	19.14
	8H	17.42	18.48	17.85	18.87	19.27	17.38	18.44	17.81	18.83	19.24
	12H	17.54	18.55	17.97	18.93	19.36	17.46	18.47	17.89	18.86	19.29
4H	2H	15.31	16.51	15.71	16.86	17.24	15.60	16.81	16.00	17.15	17.54
	3H	17.13	18.13	17.54	18.53	18.93	17.17	18.17	17.58	18.57	18.98
	4H	17.88	18.78	18.31	19.20	19.64	17.77	18.68	18.21	19.09	19.53
	6H	18.46	19.25	18.92	19.69	20.15	18.26	19.04	18.72	19.48	19.95
	8H	18.67	19.40	19.14	19.85	20.32	18.42	19.15	18.89	19.60	20.07
	12H	18.84	19.49	19.32	19.97	20.45	18.54	19.20	19.03	19.68	20.15
8H	4H	18.16	18.89	18.63	19.34	19.81	18.08	18.81	18.54	19.25	19.72
	6H	18.92	19.52	19.42	20.02	20.49	18.69	19.30	19.19	19.79	20.27
	8H	19.24	19.79	19.76	20.30	20.79	18.94	19.49	19.46	20.00	20.49
	12H	19.53	20.01	20.04	20.50	21.07	19.15	19.63	19.67	20.13	20.69
12H	4H	18.18	18.83	18.66	19.31	19.79	18.11	18.76	18.59	19.24	19.71
	6H	18.98	19.52	19.49	20.03	20.52	18.77	19.31	19.29	19.83	20.31
	8H	19.38	19.86	19.89	20.35	20.92	19.09	19.57	19.60	20.06	20.63