

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: P1057961

Luminaire Tested: S122RDRP-S485D835-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057961
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S485D835-X4F0-XX-UDD-BVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

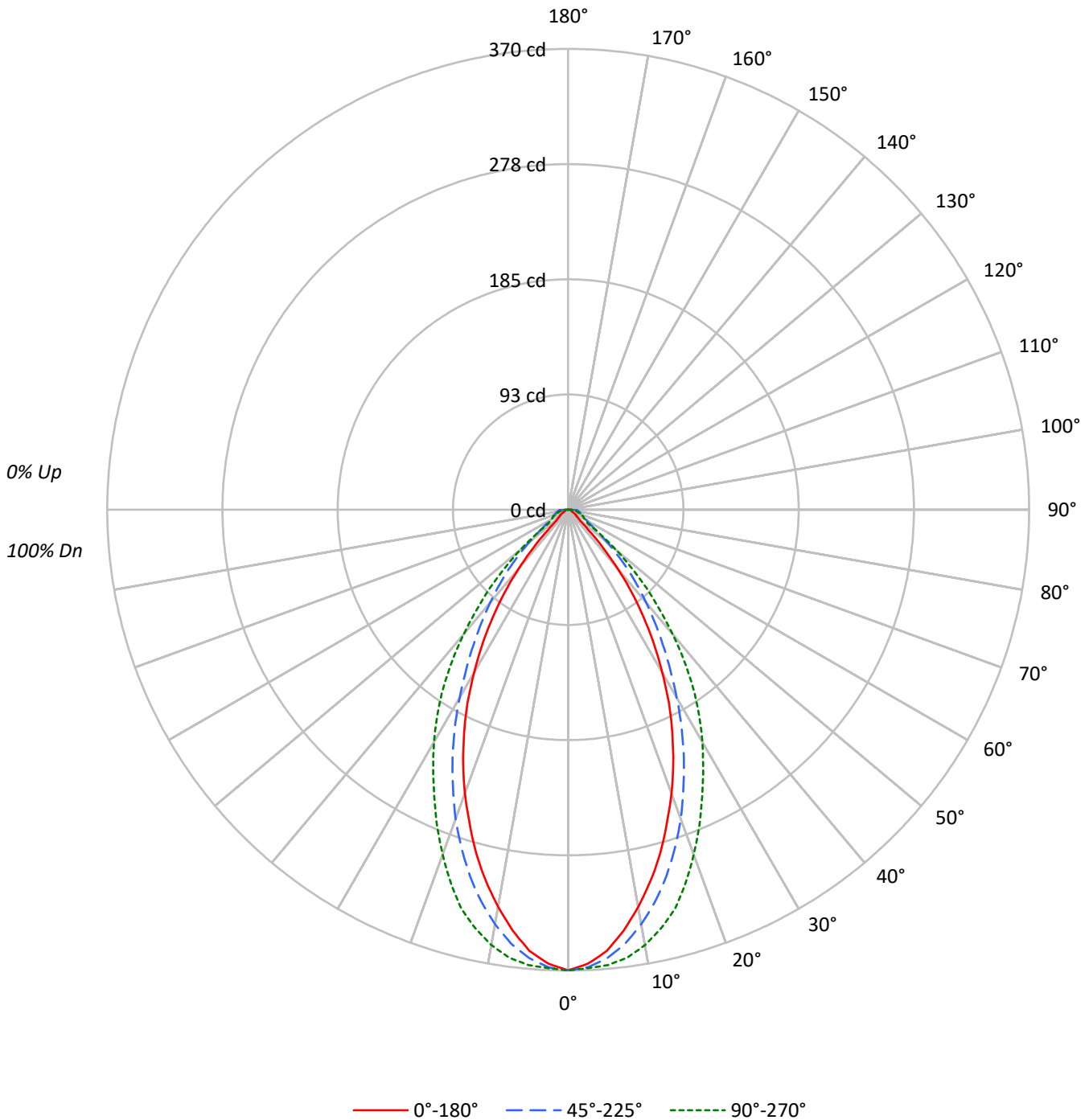
Lumens per Lamp: N/A
Luminaire Lumens: 398.6 lumens
Efficiency: N/A
Efficacy: 20.3 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6824	6824	6824
5°	6587	6692	6798
10°	6065	6331	6650
15°	5454	5819	6333
20°	4758	5188	5787
25°	4023	4471	5178
30°	3215	3714	4590
35°	2379	2985	3942
40°	1501	2339	3139
45°	592	1756	2312
50°	304	1180	1424
55°	251	775	637
60°	185	627	576
65°	153	589	589
70°	151	610	572
75°	200	706	606
80°	298	903	680
85°	445	1503	910

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 3004 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.8	8.5
10°-20°	85.4	21.4
20°-30°	101.5	25.5
30°-40°	84.5	21.2
40°-50°	47.2	11.8
50°-60°	19.1	4.8
60°-70°	12.2	3.1
70°-80°	9.1	2.3
80°-90°	5.8	1.5
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°	220.8	55.4
0°-40°	305.2	76.6
0°-60°	371.5	93.2
0°-90°	398.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	398.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	370	370	370	370	370	
5°	356	362	361	364	367	33
15°	286	294	305	320	332	79
25°	198	205	220	237	254	90
35°	106	116	132	154	175	66
45°	23	38	67	79	89	21
55°	8	16	24	23	20	7
65°	4	14	14	13	14	4
75°	3	10	10	9	8	3
85°	2	6	7	6	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	369.8	369.8	369.8	369.8	369.8
2.5°	364.8	370.5	367.7	367.7	368.4
5°	355.6	362.0	361.3	364.1	367.0
7.5°	340.8	347.8	351.4	357.8	362.7
10°	323.7	331.5	337.9	347.8	354.9
12.5°	305.3	313.1	322.3	335.1	344.3
15°	285.5	294.0	304.6	320.2	331.5
17.5°	263.5	272.7	284.8	301.8	313.8
20°	242.3	251.5	264.2	281.2	294.7
22.5°	220.3	228.1	241.6	258.6	274.9
25°	197.6	205.4	219.6	236.6	254.3
27.5°	175.0	182.8	196.9	214.7	234.5
30°	150.9	159.4	174.3	194.1	215.4
32.5°	128.2	136.7	152.3	174.3	195.5
35°	105.6	115.5	132.5	154.4	175.0
37.5°	83.6	94.9	114.1	134.6	153.0
40°	62.3	74.4	97.1	114.8	130.3
42.5°	41.1	55.3	81.5	96.3	108.4
45°	22.7	38.3	67.3	78.6	88.6
47.5°	12.8	24.8	53.1	62.3	68.0
50°	10.6	18.4	41.1	47.5	49.6
52.5°	8.5	17.0	31.2	34.7	33.3
55°	7.8	16.3	24.1	23.4	19.8
57.5°	6.4	16.3	19.1	17.0	17.0
60°	5.0	15.6	17.0	14.9	15.6
62.5°	4.3	14.9	15.6	14.2	14.2
65°	3.5	14.2	13.5	12.8	13.5
67.5°	2.8	12.8	12.8	12.0	12.0
70°	2.8	12.0	11.3	10.6	10.6
72.5°	2.8	10.6	10.6	9.9	9.9
75°	2.8	9.9	9.9	9.2	8.5
77.5°	2.8	8.5	9.2	8.5	7.8
80°	2.8	7.8	8.5	7.8	6.4
82.5°	2.8	7.1	7.8	7.1	5.7
85°	2.1	6.4	7.1	6.4	4.3
87.5°	2.1	6.4	7.1	5.7	3.5
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	5.04	6.26	5.41	6.57	6.89	6.11	7.33	6.48	7.64	7.96
	3H	6.37	7.45	6.75	7.78	8.15	8.13	9.22	8.51	9.55	9.91
	4H	6.94	7.95	7.34	8.30	8.68	9.09	10.10	9.49	10.45	10.84
	6H	7.50	8.43	7.91	8.80	9.19	10.04	10.97	10.46	11.34	11.74
	8H	7.82	8.70	8.25	9.09	9.50	10.49	11.37	10.93	11.76	12.17
	12H	8.12	8.96	8.56	9.35	9.78	10.92	11.76	11.36	12.15	12.58
4H	2H	6.01	7.02	6.41	7.37	7.76	6.79	7.80	7.20	8.16	8.54
	3H	8.03	8.86	8.44	9.26	9.67	9.06	9.90	9.48	10.30	10.71
	4H	9.10	9.85	9.54	10.27	10.71	10.21	10.96	10.65	11.38	11.83
	6H	9.97	10.62	10.43	11.07	11.53	11.39	12.04	11.85	12.48	12.95
	8H	10.38	10.99	10.85	11.43	11.91	11.95	12.56	12.43	13.01	13.48
	12H	10.76	11.29	11.25	11.78	12.25	12.51	13.04	12.99	13.53	14.00
8H	4H	9.87	10.48	10.34	10.93	11.40	10.76	11.37	11.23	11.82	12.29
	6H	11.21	11.71	11.72	12.21	12.69	12.22	12.72	12.73	13.22	13.70
	8H	11.93	12.38	12.45	12.89	13.39	12.99	13.44	13.52	13.96	14.45
	12H	12.62	13.02	13.14	13.51	14.08	13.79	14.18	14.30	14.68	15.25
12H	4H	10.03	10.56	10.52	11.05	11.52	10.87	11.41	11.36	11.89	12.36
	6H	11.54	11.98	12.06	12.50	12.99	12.45	12.90	12.97	13.41	13.91
	8H	12.44	12.83	12.96	13.33	13.90	13.36	13.76	13.88	14.25	14.82