

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: P1057972

Luminaire Tested: S122RDRP-S485D840-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057972
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S485D840-X4F0-XX-UDD-SVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

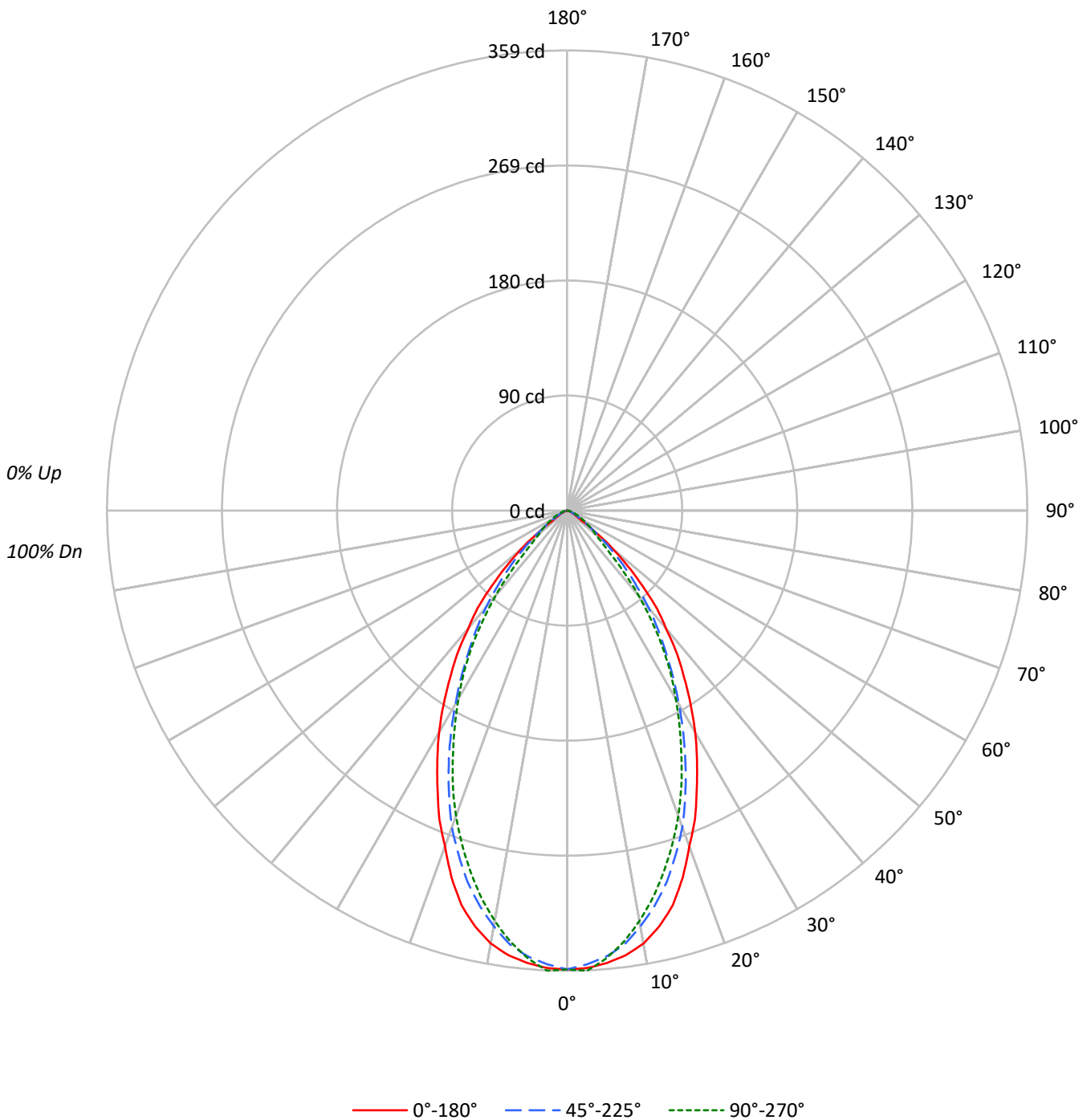
Lumens per Lamp: N/A
Luminaire Lumens: 384.9 lumens
Efficiency: N/A
Efficacy: 19.6 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6604	6604	6604
5°	6563	6470	6496
10°	6425	6170	6090
15°	6086	5731	5569
20°	5471	5162	4980
25°	4872	4451	4290
30°	4261	3714	3607
35°	3588	3010	2913
40°	2891	2375	2100
45°	2163	1714	1250
50°	1352	1108	821
55°	460	598	666
60°	262	369	528
65°	188	249	406
70°	156	194	308
75°	100	150	257
80°	74	149	223
85°	0	0	148

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2163 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.0	8.6
10°-20°	84.4	21.9
20°-30°	101.7	26.4
30°-40°	86.9	22.6
40°-50°	50.9	13.2
50°-60°	18.4	4.8
60°-70°	6.5	1.7
70°-80°	2.6	0.7
80°-90°	0.5	0.1
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°	219.1	56.9
0°-40°	306.0	79.5
0°-60°	375.3	97.5
0°-90°	384.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	384.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	358	358	358	358	358	
5°	354	355	349	351	351	33
15°	319	314	300	294	292	88
25°	239	229	219	215	211	110
35°	159	147	134	132	129	99
45°	83	74	66	55	48	64
55°	14	20	19	19	21	18
65°	4	5	6	8	9	5
75°	1	2	2	3	4	2
85°	0	0	0	1	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	357.9	357.9	357.9	357.9	357.9
2.5°	357.2	357.9	354.3	357.9	359.3
5°	354.3	355.0	349.3	350.7	350.7
7.5°	350.0	349.3	341.5	340.0	339.3
10°	342.9	340.7	329.3	327.2	325.0
12.5°	332.2	327.9	315.7	312.2	309.3
15°	318.6	313.6	300.0	294.3	291.5
17.5°	300.0	294.3	281.5	275.7	272.9
20°	278.6	272.9	262.9	256.5	253.6
22.5°	260.7	251.5	240.7	236.5	232.9
25°	239.3	229.3	218.6	215.0	210.7
27.5°	219.3	207.2	196.4	193.6	190.0
30°	200.0	187.2	174.3	174.3	169.3
32.5°	179.3	167.2	153.6	152.9	150.0
35°	159.3	147.2	133.6	132.2	129.3
37.5°	140.7	128.6	115.7	111.4	107.9
40°	120.0	109.3	98.6	91.4	87.2
42.5°	103.6	91.4	80.7	72.1	66.4
45°	82.9	74.3	65.7	55.0	47.9
47.5°	64.3	58.6	51.4	39.3	35.7
50°	47.1	44.3	38.6	29.3	28.6
52.5°	30.0	31.4	27.9	22.9	25.0
55°	14.3	20.0	18.6	19.3	20.7
57.5°	9.3	10.0	13.6	15.7	17.1
60°	7.1	7.1	10.0	12.9	14.3
62.5°	5.7	5.7	7.9	10.7	11.4
65°	4.3	5.0	5.7	7.9	9.3
67.5°	3.6	3.6	4.3	6.4	7.1
70°	2.9	2.9	3.6	5.0	5.7
72.5°	2.1	2.1	2.9	4.3	4.3
75°	1.4	2.1	2.1	2.9	3.6
77.5°	1.4	1.4	1.4	2.1	2.9
80°	0.7	0.7	1.4	1.4	2.1
82.5°	0.7	0.7	0.7	0.7	1.4
85°	0.0	0.0	0.0	0.7	0.7
87.5°	0.0	0.0	0.0	0.0	0.0
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	2.44	3.60	2.81	3.92	4.23	5.83	6.99	6.20	7.31	7.62
	3H	2.97	4.00	3.36	4.33	4.69	6.56	7.58	6.94	7.91	8.28
	4H	3.10	4.05	3.50	4.40	4.79	6.78	7.73	7.18	8.08	8.46
	6H	3.17	4.03	3.58	4.41	4.80	6.93	7.79	7.34	8.17	8.56
	8H	3.17	3.99	3.60	4.38	4.79	6.96	7.77	7.39	8.17	8.57
	12H	3.13	3.91	3.57	4.30	4.73	6.95	7.73	7.39	8.12	8.55
4H	2H	2.75	3.70	3.15	4.05	4.43	5.80	6.75	6.20	7.10	7.48
	3H	3.42	4.19	3.84	4.60	5.00	6.67	7.44	7.09	7.85	8.25
	4H	3.65	4.33	4.09	4.75	5.20	6.96	7.64	7.40	8.06	8.51
	6H	3.76	4.34	4.23	4.79	5.26	7.18	7.77	7.65	8.21	8.69
	8H	3.77	4.32	4.24	4.77	5.24	7.22	7.77	7.69	8.22	8.69
	12H	3.74	4.21	4.23	4.70	5.18	7.24	7.72	7.73	8.20	8.68
8H	4H	3.75	4.30	4.22	4.75	5.22	6.89	7.43	7.36	7.88	8.36
	6H	3.91	4.35	4.41	4.85	5.33	7.14	7.58	7.65	8.08	8.57
	8H	3.95	4.34	4.48	4.86	5.36	7.20	7.59	7.73	8.11	8.61
	12H	3.92	4.27	4.44	4.77	5.35	7.26	7.60	7.77	8.10	8.68
12H	4H	3.74	4.21	4.22	4.70	5.18	6.84	7.32	7.33	7.80	8.28
	6H	3.90	4.30	4.43	4.82	5.31	7.09	7.49	7.62	8.01	8.50
	8H	3.97	4.32	4.49	4.82	5.39	7.17	7.52	7.69	8.02	8.59