

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: P1058375

Luminaire Tested: S122RDR-H485D840-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058375
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: S122RDR-H485D840-X4F0-XX-UDD-BVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

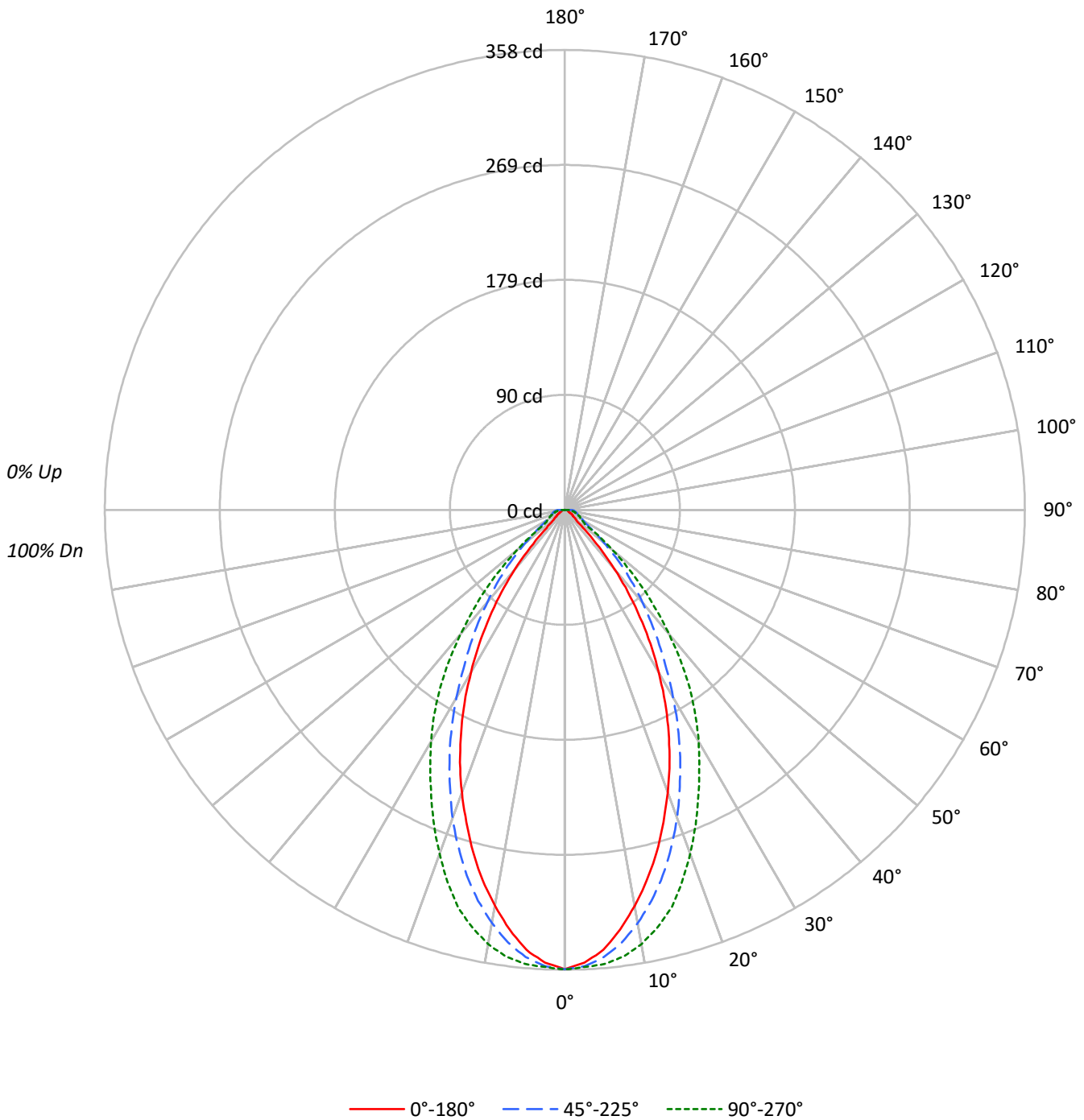
Lumens per Lamp: N/A
Luminaire Lumens: 385.5 lumens
Efficiency: N/A
Efficacy: 22.2 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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	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	101	102	100	97	98	96	95	95	93	92	90				90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81				81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74				74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67				67
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61				61
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57				57
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52				52
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48				48
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45				45
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42				42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6599	6599	6599
5°	6370	6472	6572
10°	5865	6121	6431
15°	5274	5628	6125
20°	4601	5017	5596
25°	3891	4324	5007
30°	3109	3590	4436
35°	2300	2886	3811
40°	1453	2259	3035
45°	571	1699	2234
50°	296	1140	1378
55°	241	750	618
60°	177	605	557
65°	148	568	568
70°	146	593	556
75°	192	684	585
80°	287	871	659
85°	445	1461	868

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 2919 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.7	8.5
10°-20°	82.6	21.4
20°-30°	98.2	25.5
30°-40°	81.7	21.2
40°-50°	45.6	11.8
50°-60°	18.4	4.8
60°-70°	11.8	3.1
70°-80°	8.8	2.3
80°-90°	5.7	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°	213.5	55.4
0°-40°	295.1	76.6
0°-60°	359.2	93.2
0°-90°	385.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	385.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	358	358	358	358	358	
5°	344	350	349	352	355	32
15°	276	284	295	310	321	77
25°	191	199	212	229	246	87
35°	102	112	128	149	169	63
45°	22	37	65	76	86	21
55°	8	16	23	23	19	7
65°	3	14	13	12	13	3
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°	357.6	357.6	357.6	357.6	357.6
2.5°	352.8	358.3	355.5	355.5	356.2
5°	343.9	350.0	349.4	352.1	354.8
7.5°	329.5	336.3	339.8	345.9	350.7
10°	313.0	320.6	326.7	336.3	343.2
12.5°	295.2	302.8	311.7	324.0	332.9
15°	276.1	284.3	294.6	309.6	320.6
17.5°	254.8	263.7	275.4	291.8	303.5
20°	234.3	243.2	255.5	271.9	285.0
22.5°	213.0	220.6	233.6	250.0	265.8
25°	191.1	198.7	212.4	228.8	245.9
27.5°	169.2	176.7	190.4	207.6	226.7
30°	145.9	154.1	168.5	187.7	208.2
32.5°	124.0	132.2	147.3	168.5	189.1
35°	102.1	111.7	128.1	149.3	169.2
37.5°	80.8	91.8	110.3	130.2	148.0
40°	60.3	71.9	93.8	111.0	126.0
42.5°	39.7	53.4	78.8	93.2	104.8
45°	21.9	37.0	65.1	76.0	85.6
47.5°	12.3	24.0	51.4	60.3	65.8
50°	10.3	17.8	39.7	45.9	48.0
52.5°	8.2	16.4	30.1	33.6	32.2
55°	7.5	15.8	23.3	22.6	19.2
57.5°	6.2	15.8	18.5	16.4	16.4
60°	4.8	15.1	16.4	14.4	15.1
62.5°	4.1	14.4	15.1	13.7	13.7
65°	3.4	13.7	13.0	12.3	13.0
67.5°	2.7	12.3	12.3	11.6	11.6
70°	2.7	11.6	11.0	10.3	10.3
72.5°	2.7	10.3	10.3	9.6	9.6
75°	2.7	9.6	9.6	8.9	8.2
77.5°	2.7	8.2	8.9	8.2	7.5
80°	2.7	7.5	8.2	7.5	6.2
82.5°	2.7	6.9	7.5	6.9	5.5
85°	2.1	6.2	6.9	6.2	4.1
87.5°	2.1	6.2	6.9	5.5	3.4
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	4.94	6.16	5.31	6.47	6.79	5.98	7.20	6.35	7.51	7.83
	3H	6.25	7.34	6.64	7.67	8.04	8.01	9.10	8.39	9.43	9.79
	4H	6.82	7.83	7.23	8.19	8.57	8.97	9.98	9.37	10.33	10.72
	6H	7.38	8.31	7.80	8.68	9.08	9.92	10.85	10.33	11.22	11.61
	8H	7.70	8.58	8.13	8.97	9.38	10.37	11.25	10.80	11.64	12.05
	12H	8.01	8.86	8.45	9.24	9.67	10.80	11.64	11.23	12.02	12.45
4H	2H	5.90	6.91	6.30	7.26	7.64	6.66	7.67	7.06	8.02	8.41
	3H	7.91	8.74	8.33	9.15	9.55	8.95	9.78	9.36	10.19	10.59
	4H	8.99	9.74	9.43	10.16	10.60	10.10	10.85	10.53	11.27	11.71
	6H	9.85	10.50	10.32	10.95	11.42	11.27	11.91	11.73	12.36	12.83
	8H	10.26	10.87	10.73	11.32	11.79	11.83	12.44	12.30	12.89	13.36
	12H	10.65	11.18	11.14	11.67	12.14	12.38	12.91	12.87	13.40	13.87
8H	4H	9.76	10.37	10.23	10.82	11.29	10.65	11.26	11.12	11.70	12.18
	6H	11.09	11.59	11.60	12.09	12.57	12.10	12.60	12.61	13.10	13.58
	8H	11.81	12.26	12.34	12.78	13.27	12.87	13.32	13.40	13.84	14.33
	12H	12.52	12.91	13.03	13.40	13.98	13.67	14.06	14.18	14.55	15.13
12H	4H	9.92	10.45	10.40	10.94	11.41	10.76	11.29	11.24	11.77	12.25
	6H	11.41	11.86	11.94	12.38	12.87	12.33	12.77	12.85	13.29	13.78
	8H	12.32	12.71	12.84	13.21	13.78	13.24	13.64	13.76	14.13	14.70