

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: P1058377

Luminaire Tested: S122RDR-H485D840-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058377
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: S122RDR-H485D840-X4F0-XX-UDD-SVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

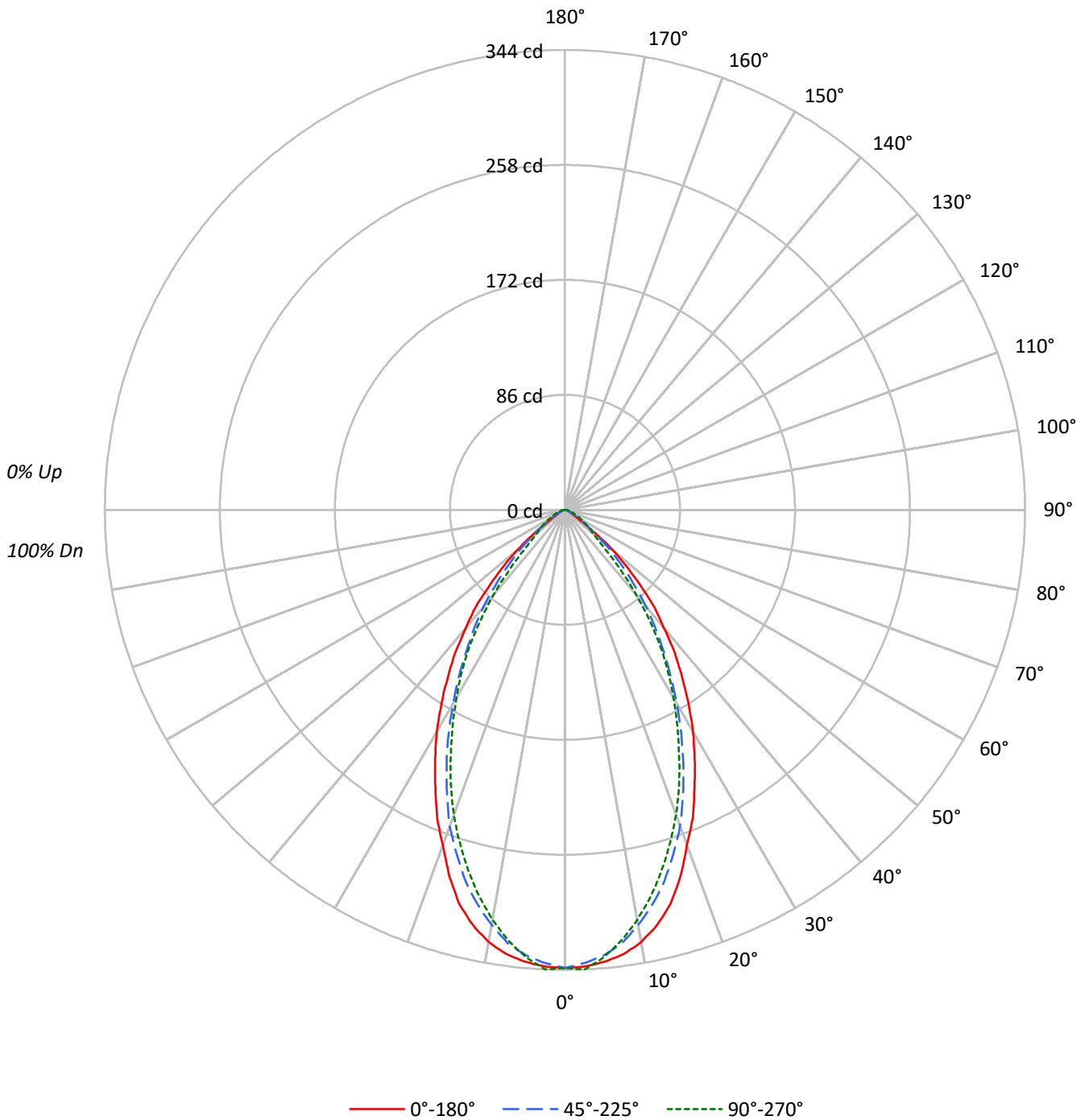
Lumens per Lamp: N/A
Luminaire Lumens: 368.6 lumens
Efficiency: N/A
Efficacy: 21.2 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	6324	6324	6324
5°	6285	6196	6220
10°	6151	5908	5831
15°	5828	5488	5332
20°	5239	4943	4768
25°	4664	4261	4109
30°	4080	3556	3454
35°	3435	2881	2789
40°	2768	2274	2009
45°	2069	1641	1195
50°	1295	1059	787
55°	441	573	637
60°	251	354	506
65°	179	240	389
70°	146	183	297
75°	100	150	242
80°	74	149	223
85°	0	0	148

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2069 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.6	8.6
10°-20°	80.9	21.9
20°-30°	97.4	26.4
30°-40°	83.2	22.6
40°-50°	48.7	13.2
50°-60°	17.6	4.8
60°-70°	6.3	1.7
70°-80°	2.5	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°	209.8	56.9
0°-40°	293.0	79.5
0°-60°	359.4	97.5
0°-90°	368.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	368.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	343	343	343	343	343	
5°	339	340	334	336	336	32
15°	305	300	287	282	279	85
25°	229	220	209	206	202	105
35°	152	141	128	126	124	95
45°	79	71	63	53	46	61
55°	14	19	18	18	20	17
65°	4	5	6	8	9	4
75°	1	2	2	3	3	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°	342.7	342.7	342.7	342.7	342.7
2.5°	342.0	342.7	339.3	342.7	344.0
5°	339.3	339.9	334.5	335.8	335.8
7.5°	335.2	334.5	326.9	325.6	324.9
10°	328.3	326.3	315.3	313.3	311.2
12.5°	318.1	314.0	302.3	298.9	296.2
15°	305.1	300.3	287.3	281.8	279.1
17.5°	287.3	281.8	269.5	264.0	261.3
20°	266.8	261.3	251.7	245.6	242.8
22.5°	249.7	240.8	230.5	226.4	223.0
25°	229.1	219.6	209.3	205.9	201.8
27.5°	210.0	198.4	188.1	185.4	181.9
30°	191.5	179.2	166.9	166.9	162.1
32.5°	171.7	160.1	147.1	146.4	143.6
35°	152.5	140.9	127.9	126.5	123.8
37.5°	134.7	123.1	110.8	106.7	103.3
40°	114.9	104.7	94.4	87.6	83.4
42.5°	99.2	87.6	77.3	69.1	63.6
45°	79.3	71.1	62.9	52.7	45.8
47.5°	61.6	56.1	49.2	37.6	34.2
50°	45.1	42.4	36.9	28.0	27.4
52.5°	28.7	30.1	26.7	21.9	23.9
55°	13.7	19.2	17.8	18.5	19.8
57.5°	8.9	9.6	13.0	15.0	16.4
60°	6.8	6.8	9.6	12.3	13.7
62.5°	5.5	5.5	7.5	10.3	10.9
65°	4.1	4.8	5.5	7.5	8.9
67.5°	3.4	3.4	4.1	6.2	6.8
70°	2.7	2.7	3.4	4.8	5.5
72.5°	2.1	2.1	2.7	4.1	4.1
75°	1.4	2.1	2.1	2.7	3.4
77.5°	1.4	1.4	1.4	2.1	2.7
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	2.30	3.47	2.67	3.78	4.09	5.67	6.83	6.03	7.14	7.46
	3H	2.81	3.83	3.19	4.16	4.53	6.40	7.43	6.79	7.76	8.13
	4H	2.95	3.90	3.36	4.25	4.64	6.62	7.57	7.02	7.92	8.31
	6H	3.04	3.90	3.45	4.28	4.67	6.77	7.64	7.19	8.01	8.41
	8H	3.04	3.86	3.48	4.25	4.66	6.81	7.63	7.24	8.02	8.43
	12H	3.01	3.79	3.44	4.17	4.60	6.81	7.59	7.24	7.97	8.41
4H	2H	2.61	3.56	3.02	3.91	4.30	5.64	6.59	6.04	6.94	7.33
	3H	3.26	4.03	3.67	4.43	4.84	6.52	7.29	6.93	7.69	8.10
	4H	3.52	4.20	3.95	4.62	5.07	6.80	7.48	7.23	7.90	8.35
	6H	3.64	4.23	4.11	4.68	5.15	7.03	7.61	7.50	8.06	8.53
	8H	3.66	4.21	4.14	4.66	5.13	7.08	7.63	7.55	8.07	8.55
	12H	3.63	4.11	4.12	4.59	5.07	7.10	7.58	7.59	8.07	8.54
8H	4H	3.63	4.17	4.10	4.62	5.10	6.73	7.28	7.20	7.73	8.20
	6H	3.80	4.25	4.31	4.75	5.23	7.00	7.44	7.51	7.94	8.42
	8H	3.85	4.25	4.38	4.77	5.26	7.07	7.46	7.59	7.98	8.48
	12H	3.83	4.18	4.35	4.68	5.25	7.13	7.48	7.65	7.98	8.55
12H	4H	3.61	4.09	4.10	4.58	5.05	6.68	7.16	7.17	7.65	8.12
	6H	3.80	4.20	4.33	4.72	5.21	6.95	7.35	7.48	7.87	8.36
	8H	3.88	4.23	4.40	4.73	5.30	7.04	7.39	7.56	7.89	8.46