

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: P1058314

Luminaire Tested: S122RDR-H290D927-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058314
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-H290D927-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: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

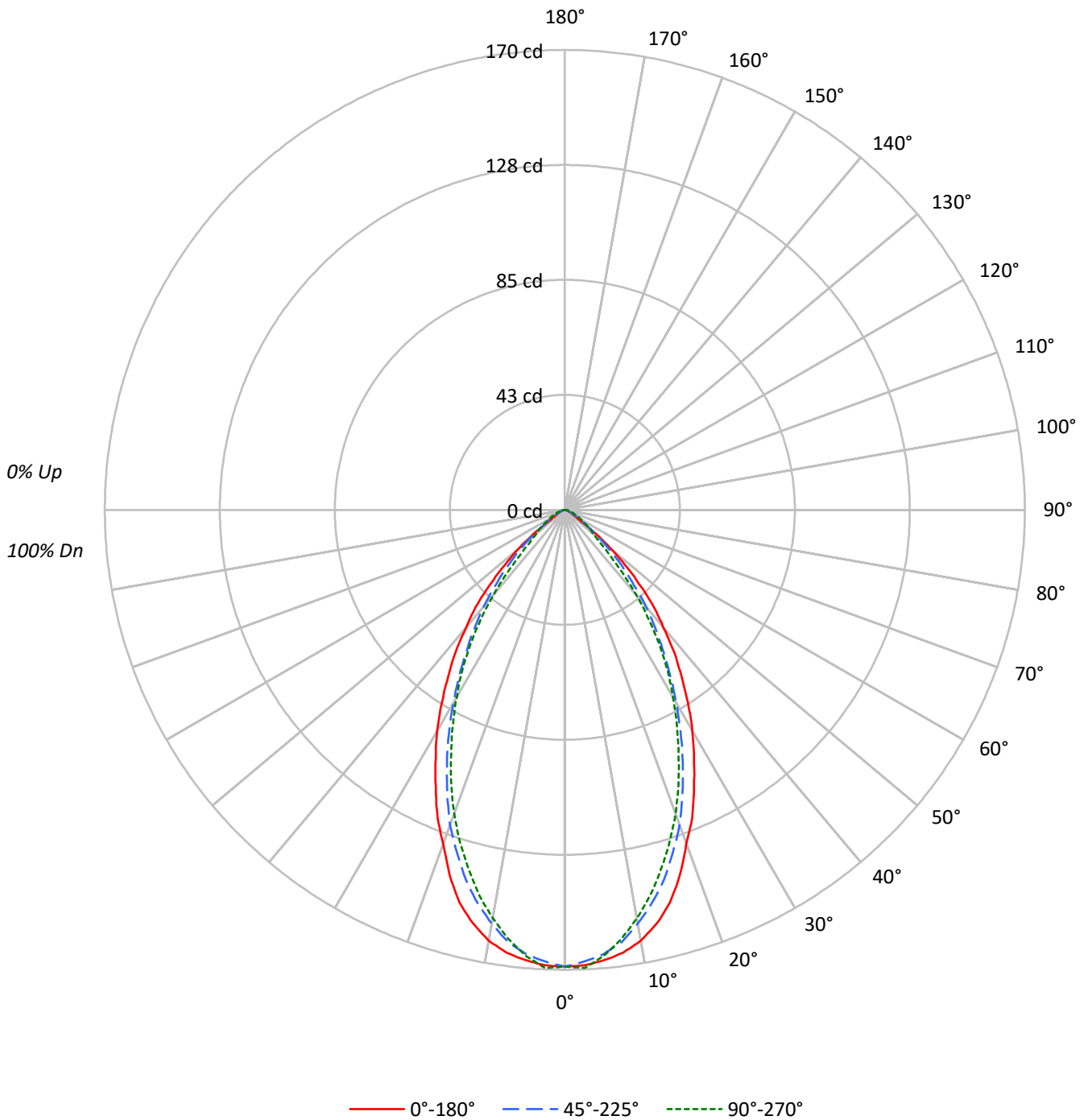
Lumens per Lamp: N/A
Luminaire Lumens: 181.5 lumens
Efficiency: N/A
Efficacy: 15.5 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92				92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84				84
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	81	78	76				76
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70				70
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64				64
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59				59
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54				54
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50				50
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47				47
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44				44

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3115	3115	3115
5°	3095	3053	3064
10°	3030	2910	2872
15°	2871	2703	2627
20°	2580	2435	2349
25°	2299	2099	2024
30°	2009	1751	1702
35°	1692	1419	1374
40°	1363	1120	990
45°	1020	809	590
50°	637	522	388
55°	216	283	315
60°	125	173	247
65°	87	118	192
70°	70	92	146
75°	50	71	121
80°	32	74	106
85°	0	0	64

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1020 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	15.6	8.6
10°-20°	39.8	21.9
20°-30°	48.0	26.4
30°-40°	41.0	22.6
40°-50°	24.0	13.2
50°-60°	8.7	4.8
60°-70°	3.1	1.7
70°-80°	1.2	0.7
80°-90°	0.2	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°	103.3	56.9
0°-40°	144.3	79.5
0°-60°	177.0	97.5
0°-90°	181.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	181.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	169	169	169	169	169	
5°	167	168	165	165	165	16
15°	150	148	142	139	138	42
25°	113	108	103	101	99	52
35°	75	69	63	62	61	47
45°	39	35	31	26	23	30
55°	7	9	9	9	10	8
65°	2	2	3	4	4	2
75°	1	1	1	1	2	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	168.8	168.8	168.8	168.8	168.8
2.5°	168.5	168.8	167.1	168.8	169.5
5°	167.1	167.5	164.8	165.4	165.4
7.5°	165.1	164.8	161.1	160.4	160.0
10°	161.7	160.7	155.3	154.3	153.3
12.5°	156.7	154.6	148.9	147.2	145.9
15°	150.3	147.9	141.5	138.8	137.5
17.5°	141.5	138.8	132.7	130.1	128.7
20°	131.4	128.7	124.0	121.0	119.6
22.5°	123.0	118.6	113.5	111.5	109.8
25°	112.9	108.2	103.1	101.4	99.4
27.5°	103.4	97.7	92.7	91.3	89.6
30°	94.3	88.3	82.2	82.2	79.9
32.5°	84.6	78.8	72.4	72.1	70.8
35°	75.1	69.4	63.0	62.3	61.0
37.5°	66.4	60.6	54.6	52.6	50.9
40°	56.6	51.5	46.5	43.1	41.1
42.5°	48.9	43.1	38.1	34.0	31.3
45°	39.1	35.0	31.0	25.9	22.6
47.5°	30.3	27.6	24.3	18.5	16.8
50°	22.2	20.9	18.2	13.8	13.5
52.5°	14.2	14.8	13.1	10.8	11.8
55°	6.7	9.4	8.8	9.1	9.8
57.5°	4.4	4.7	6.4	7.4	8.1
60°	3.4	3.4	4.7	6.1	6.7
62.5°	2.7	2.7	3.7	5.1	5.4
65°	2.0	2.4	2.7	3.7	4.4
67.5°	1.7	1.7	2.0	3.0	3.4
70°	1.3	1.3	1.7	2.4	2.7
72.5°	1.0	1.0	1.3	2.0	2.0
75°	0.7	1.0	1.0	1.3	1.7
77.5°	0.7	0.7	0.7	1.0	1.3
80°	0.3	0.3	0.7	0.7	1.0
82.5°	0.3	0.3	0.3	0.3	0.7
85°	0.0	0.0	0.0	0.3	0.3
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	0.00	0.98	0.19	1.29	1.61	3.22	4.39	3.59	4.70	5.01
	3H	0.33	1.36	0.71	1.69	2.05	3.96	4.98	4.34	5.31	5.68
	4H	0.47	1.42	0.88	1.77	2.16	4.17	5.12	4.58	5.47	5.86
	6H	0.55	1.42	0.97	1.79	2.18	4.31	5.18	4.73	5.55	5.95
	8H	0.54	1.36	0.98	1.75	2.16	4.35	5.16	4.78	5.55	5.96
	12H	0.50	1.29	0.94	1.67	2.10	4.34	5.12	4.78	5.51	5.94
4H	2H	0.13	1.08	0.54	1.43	1.82	3.19	4.14	3.60	4.49	4.88
	3H	0.78	1.54	1.19	1.95	2.36	4.07	4.84	4.49	5.25	5.65
	4H	1.02	1.70	1.46	2.12	2.57	4.34	5.03	4.78	5.45	5.89
	6H	1.14	1.73	1.61	2.18	2.65	4.56	5.15	5.03	5.59	6.07
	8H	1.14	1.69	1.61	2.14	2.61	4.61	5.15	5.08	5.60	6.08
	12H	1.10	1.58	1.59	2.07	2.54	4.62	5.10	5.11	5.58	6.06
8H	4H	1.13	1.67	1.60	2.12	2.60	4.27	4.82	4.75	5.27	5.74
	6H	1.29	1.73	1.80	2.24	2.72	4.53	4.97	5.04	5.47	5.95
	8H	1.32	1.71	1.84	2.23	2.73	4.59	4.98	5.12	5.50	6.00
	12H	1.29	1.63	1.81	2.13	2.71	4.64	4.98	5.15	5.48	6.06
12H	4H	1.12	1.59	1.61	2.08	2.56	4.23	4.70	4.71	5.19	5.66
	6H	1.29	1.69	1.82	2.21	2.70	4.48	4.87	5.01	5.39	5.89
	8H	1.34	1.69	1.86	2.18	2.76	4.56	4.91	5.08	5.40	5.98