

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: P1058348

Luminaire Tested: S122RDR-H290D950-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058348
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-H290D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

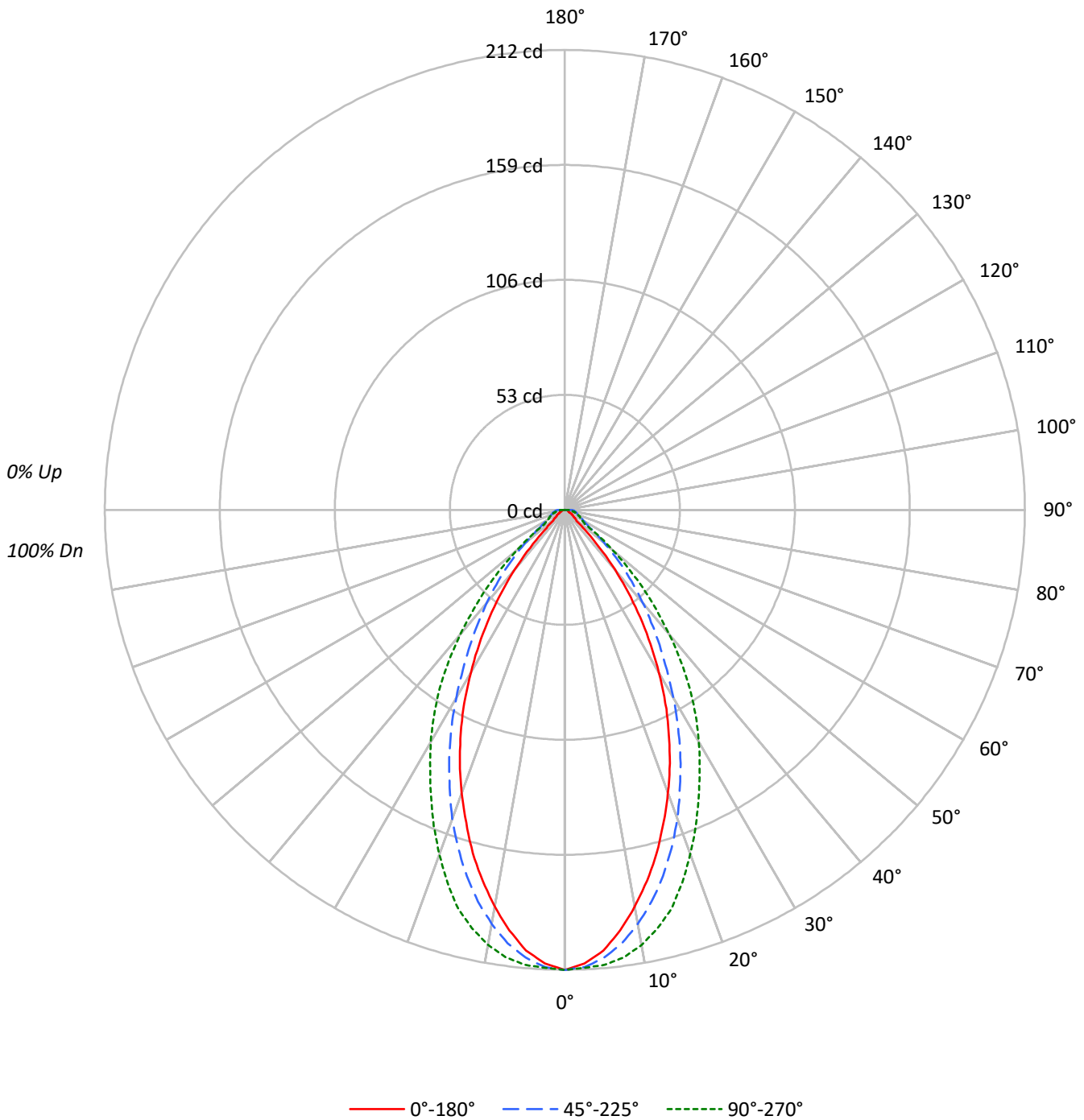
Lumens per Lamp: N/A
Luminaire Lumens: 228.7 lumens
Efficiency: N/A
Efficacy: 19.5 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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				
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	56				
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	60	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°	3914	3914	3914
5°	3779	3838	3899
10°	3479	3631	3815
15°	3129	3337	3633
20°	2730	2977	3319
25°	2309	2565	2971
30°	1845	2131	2631
35°	1363	1712	2262
40°	862	1342	1802
45°	339	1007	1326
50°	175	677	815
55°	145	444	367
60°	103	362	328
65°	87	336	336
70°	86	351	329
75°	114	406	349
80°	170	521	393
85°	254	868	508

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 1734 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.4	8.5
10°-20°	49.0	21.4
20°-30°	58.2	25.5
30°-40°	48.4	21.2
40°-50°	27.1	11.8
50°-60°	10.9	4.8
60°-70°	7.0	3.0
70°-80°	5.3	2.3
80°-90°	3.4	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°	126.6	55.4
0°-40°	175.1	76.6
0°-60°	213.1	93.2
0°-90°	228.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	228.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	212	212	212	212	212	
5°	204	208	207	209	210	19
15°	164	169	175	184	190	46
25°	113	118	126	136	146	52
35°	60	66	76	89	100	38
45°	13	22	39	45	51	12
55°	4	9	14	13	11	4
65°	2	8	8	7	8	2
75°	2	6	6	5	5	2
85°	1	4	4	4	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	212.1	212.1	212.1	212.1	212.1
2.5°	209.3	212.5	210.9	210.9	211.3
5°	204.0	207.6	207.2	208.9	210.5
7.5°	195.5	199.5	201.5	205.2	208.1
10°	185.7	190.2	193.8	199.5	203.6
12.5°	175.1	179.6	184.9	192.2	197.5
15°	163.8	168.6	174.7	183.7	190.2
17.5°	151.2	156.4	163.4	173.1	180.0
20°	139.0	144.3	151.6	161.3	169.0
22.5°	126.4	130.8	138.6	148.3	157.7
25°	113.4	117.8	126.0	135.7	145.9
27.5°	100.4	104.8	113.0	123.1	134.5
30°	86.6	91.4	100.0	111.3	123.5
32.5°	73.5	78.4	87.4	100.0	112.2
35°	60.5	66.2	76.0	88.6	100.4
37.5°	47.9	54.5	65.4	77.2	87.8
40°	35.8	42.7	55.7	65.8	74.8
42.5°	23.6	31.7	46.7	55.3	62.2
45°	13.0	21.9	38.6	45.1	50.8
47.5°	7.3	14.2	30.5	35.8	39.0
50°	6.1	10.6	23.6	27.2	28.4
52.5°	4.9	9.8	17.9	19.9	19.1
55°	4.5	9.3	13.8	13.4	11.4
57.5°	3.7	9.3	11.0	9.8	9.8
60°	2.8	8.9	9.8	8.5	8.9
62.5°	2.4	8.5	8.9	8.1	8.1
65°	2.0	8.1	7.7	7.3	7.7
67.5°	1.6	7.3	7.3	6.9	6.9
70°	1.6	6.9	6.5	6.1	6.1
72.5°	1.6	6.1	6.1	5.7	5.7
75°	1.6	5.7	5.7	5.3	4.9
77.5°	1.6	4.9	5.3	4.9	4.5
80°	1.6	4.5	4.9	4.5	3.7
82.5°	1.6	4.1	4.5	4.1	3.3
85°	1.2	3.7	4.1	3.7	2.4
87.5°	1.2	3.7	4.1	3.3	2.0
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	3.08	4.30	3.45	4.61	4.93	4.21	5.43	4.58	5.74	6.06
	3H	4.41	5.50	4.79	5.83	6.19	6.23	7.31	6.61	7.64	8.01
	4H	4.99	6.00	5.39	6.35	6.73	7.18	8.19	7.59	8.54	8.93
	6H	5.55	6.48	5.97	6.85	7.25	8.14	9.07	8.55	9.44	9.83
	8H	5.87	6.75	6.31	7.14	7.55	8.60	9.48	9.03	9.87	10.27
	12H	6.18	7.02	6.61	7.40	7.83	9.01	9.86	9.45	10.24	10.67
4H	2H	4.05	5.06	4.45	5.41	5.79	4.88	5.89	5.28	6.24	6.62
	3H	6.08	6.91	6.49	7.32	7.72	7.15	7.98	7.56	8.39	8.79
	4H	7.16	7.91	7.60	8.33	8.78	8.30	9.05	8.74	9.47	9.92
	6H	8.04	8.69	8.51	9.14	9.60	9.48	10.13	9.95	10.58	11.05
	8H	8.45	9.06	8.92	9.51	9.98	10.05	10.66	10.53	11.11	11.58
	12H	8.83	9.37	9.32	9.85	10.33	10.60	11.13	11.08	11.61	12.09
8H	4H	7.94	8.55	8.41	9.00	9.47	8.85	9.46	9.33	9.91	10.38
	6H	9.29	9.79	9.80	10.29	10.77	10.32	10.82	10.83	11.32	11.80
	8H	10.02	10.46	10.54	10.98	11.47	11.09	11.54	11.62	12.06	12.55
	12H	10.71	11.11	11.23	11.60	12.17	11.88	12.27	12.40	12.77	13.34
12H	4H	8.10	8.64	8.59	9.12	9.60	8.96	9.50	9.45	9.98	10.46
	6H	9.62	10.07	10.14	10.58	11.08	10.55	11.00	11.07	11.51	12.01
	8H	10.53	10.92	11.05	11.42	11.99	11.47	11.86	11.98	12.35	12.93