

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: P1058348

Luminaire Tested: S122RDRP-H290D950-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
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: S122RDRP-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: -

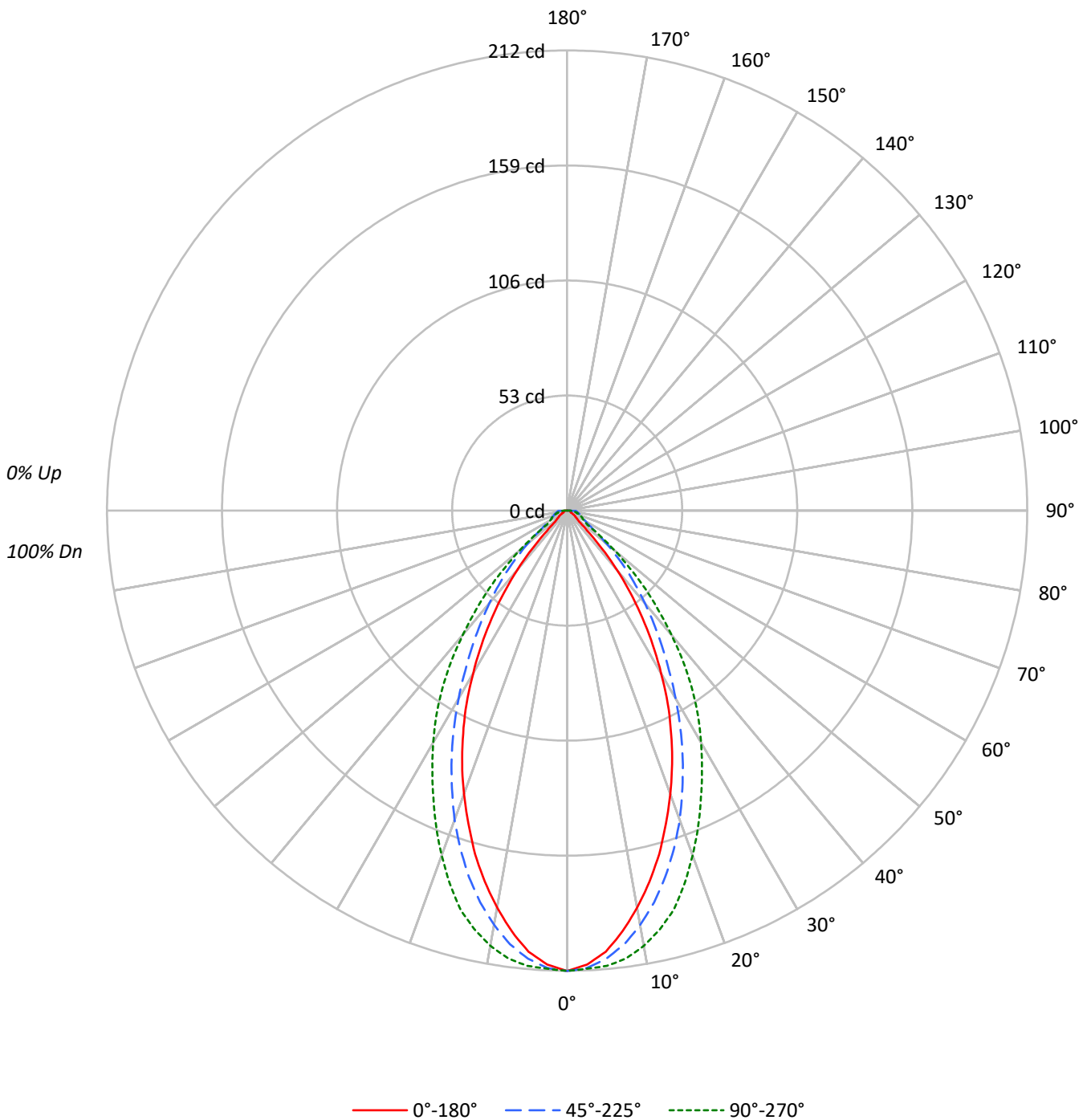
**Summary**

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 (A<sub>in</sub>): 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	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