

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: P1057949

Luminaire Tested: S122RDRP-S290D950-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057949  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S290D950-X4F0-XX-UDD-WVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

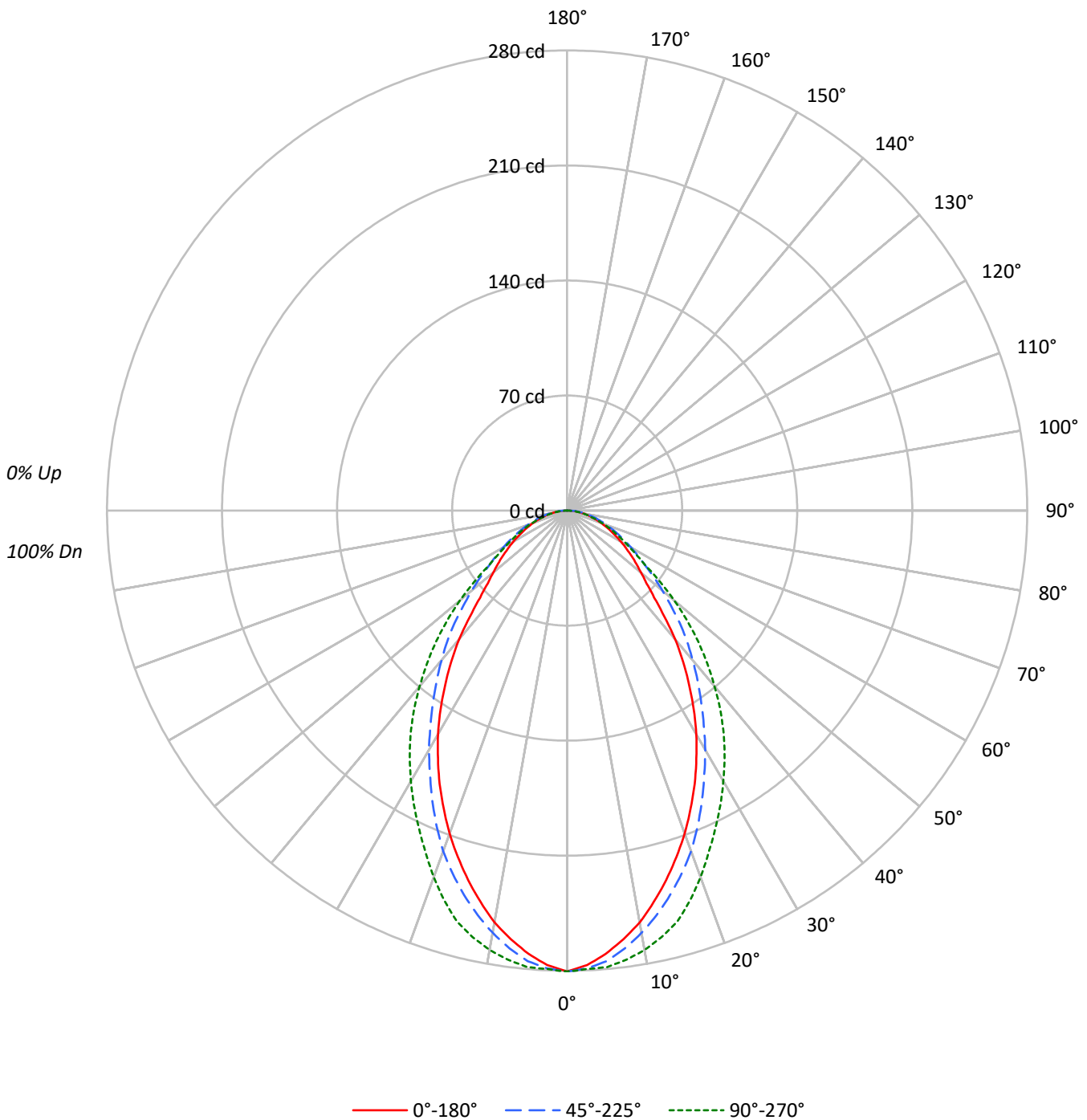
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 456.7 lumens  
Efficiency: N/A  
Efficacy: 36.5 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 12.5  
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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87
2	102	95	89	84	100	93	88	83	90	85	81	86	83	79	84	80	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36
10	59	47	40	35	58	46	39	35	45	39	35	45	39	34	44	38	34	33

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5176	5176	5176
5°	5014	5098	5164
10°	4767	4889	5087
15°	4447	4627	4946
20°	4108	4332	4660
25°	3738	3954	4343
30°	3347	3582	4050
35°	2915	3201	3742
40°	2462	2864	3363
45°	1955	2529	2944
50°	1682	2173	2443
55°	1531	1859	1872
60°	1399	1653	1591
65°	1279	1493	1406
70°	1187	1381	1252
75°	1105	1305	1105
80°	1041	1254	999
85°	1037	1291	868

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2944 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.9	5.7
10°-20°	68.4	15.0
20°-30°	90.1	19.7
30°-40°	90.6	19.8
40°-50°	73.4	16.1
50°-60°	50.6	11.1
60°-70°	33.1	7.2
70°-80°	18.4	4.0
80°-90°	6.2	1.4
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°	184.4	40.4
0°-40°	275.0	60.2
0°-60°	398.9	87.3
0°-90°	456.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	456.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	280	280	280	280	280	
5°	271	276	275	276	279	25
15°	233	238	242	251	259	65
25°	184	188	194	203	213	84
35°	129	136	142	155	166	81
45°	75	83	97	105	113	59
55°	48	53	58	59	58	43
65°	29	35	34	33	32	29
75°	16	19	18	16	16	17
85°	5	6	6	5	4	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	280.5	280.5	280.5	280.5	280.5
2.5°	276.8	281.7	278.8	278.8	279.2
5°	270.7	276.0	275.2	276.4	278.8
7.5°	263.0	268.7	268.7	272.3	275.6
10°	254.4	260.1	260.9	266.6	271.5
12.5°	243.8	249.5	252.0	259.3	265.8
15°	232.8	238.5	242.2	251.2	258.9
17.5°	221.0	226.7	231.6	241.0	248.7
20°	209.2	214.5	220.6	228.8	237.3
22.5°	196.2	201.9	207.6	215.3	225.1
25°	183.6	188.5	194.2	202.7	213.3
27.5°	170.2	175.4	180.7	190.9	201.9
30°	157.1	162.4	168.1	178.7	190.1
32.5°	143.3	149.0	154.7	166.5	178.3
35°	129.4	135.6	142.1	154.7	166.1
37.5°	116.0	122.5	130.3	143.3	153.1
40°	102.2	109.1	118.9	130.3	139.6
42.5°	87.5	96.1	107.9	117.6	126.2
45°	74.9	83.4	96.9	105.4	112.8
47.5°	65.5	72.5	85.5	92.8	98.9
50°	58.6	63.9	75.7	81.0	85.1
52.5°	52.9	58.2	66.4	70.0	71.2
55°	47.6	52.9	57.8	59.0	58.2
57.5°	42.3	48.0	50.9	49.7	49.7
60°	37.9	44.0	44.8	43.1	43.1
62.5°	33.4	39.5	39.5	37.5	37.5
65°	29.3	35.0	34.2	32.6	32.2
67.5°	25.6	30.9	29.7	28.1	27.7
70°	22.0	26.9	25.6	23.6	23.2
72.5°	18.7	23.2	21.6	19.9	19.1
75°	15.5	19.1	18.3	16.3	15.5
77.5°	12.6	15.5	14.7	13.0	12.2
80°	9.8	12.2	11.8	10.2	9.4
82.5°	7.3	9.4	9.0	7.7	6.5
85°	4.9	6.5	6.1	5.3	4.1
87.5°	2.4	4.5	4.1	3.7	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	12.44	13.88	12.80	14.19	14.51	12.80	14.25	13.17	14.56	14.87
	3H	13.98	15.27	14.36	15.60	15.96	14.15	15.44	14.53	15.77	16.13
	4H	14.55	15.76	14.95	16.11	16.49	14.63	15.84	15.03	16.19	16.57
	6H	14.98	16.10	15.40	16.47	16.86	14.99	16.10	15.40	16.47	16.86
	8H	15.14	16.20	15.57	16.59	16.99	15.10	16.16	15.53	16.55	16.96
	12H	15.25	16.27	15.68	16.65	17.08	15.18	16.19	15.61	16.57	17.00
4H	2H	13.02	14.23	13.42	14.58	14.96	13.32	14.53	13.72	14.88	15.26
	3H	14.85	15.85	15.26	16.25	16.65	14.89	15.89	15.30	16.29	16.69
	4H	15.59	16.49	16.03	16.91	17.35	15.49	16.40	15.93	16.81	17.25
	6H	16.18	16.96	16.64	17.41	17.87	15.98	16.76	16.44	17.20	17.66
	8H	16.39	17.12	16.86	17.57	18.04	16.14	16.87	16.60	17.32	17.78
	12H	16.56	17.21	17.04	17.69	18.16	16.26	16.91	16.75	17.39	17.87
8H	4H	15.88	16.61	16.34	17.05	17.52	15.80	16.53	16.26	16.97	17.44
	6H	16.64	17.24	17.13	17.73	18.21	16.41	17.02	16.91	17.51	17.99
	8H	16.96	17.50	17.48	18.01	18.50	16.66	17.20	17.18	17.72	18.20
	12H	17.25	17.73	17.76	18.22	18.79	16.87	17.35	17.38	17.85	18.41
12H	4H	15.90	16.55	16.38	17.03	17.50	15.83	16.48	16.31	16.96	17.43
	6H	16.70	17.24	17.21	17.75	18.24	16.49	17.03	17.01	17.55	18.03
	8H	17.10	17.58	17.61	18.07	18.64	16.81	17.29	17.32	17.78	18.35