

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: P1057950

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057950  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55 )  
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-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

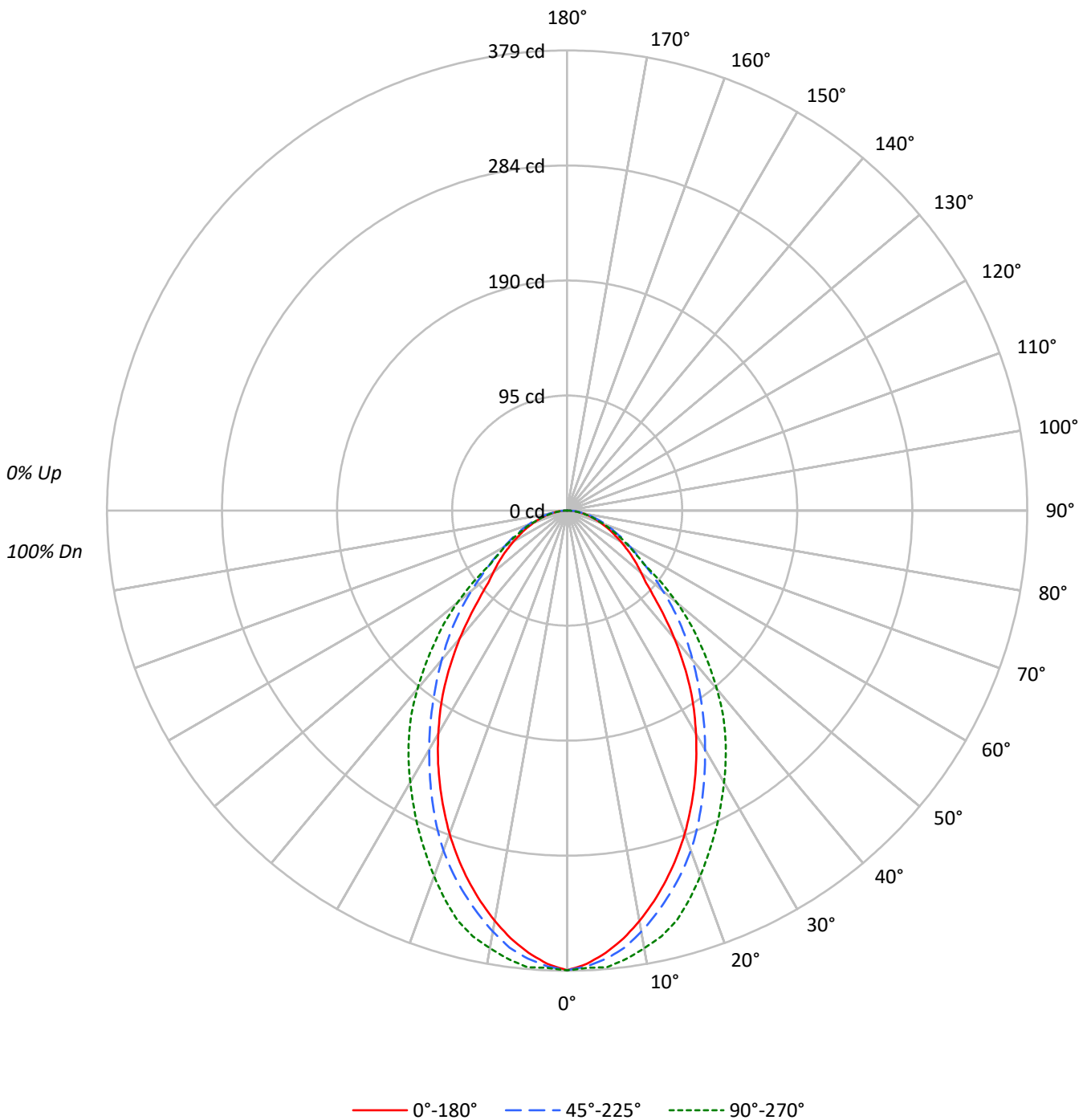
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 617.2 lumens  
Efficiency: N/A  
Efficacy: 49.4 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	100	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	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59
5	81	70	62	56	80	69	62	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	46	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	40	35	46	39	35	45	39	35	44	38	34	33

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

	0°	45°	90°
0°	6986	6986	6986
5°	6772	6863	6991
10°	6431	6597	6858
15°	6019	6245	6673
20°	5563	5852	6292
25°	5055	5355	5900
30°	4519	4841	5508
35°	3962	4339	5118
40°	3315	3873	4618
45°	2657	3432	4037
50°	2279	2957	3390
55°	2081	2516	2503
60°	1893	2222	2177
65°	1725	1991	1904
70°	1581	1824	1689
75°	1483	1683	1483
80°	1381	1562	1296
85°	1376	1630	1122

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4037 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	34.9	5.7
10°-20°	92.5	15.0
20°-30°	122.0	19.8
30°-40°	122.9	19.9
40°-50°	100.0	16.2
50°-60°	68.2	11.0
60°-70°	44.3	7.2
70°-80°	24.4	3.9
80°-90°	8.0	1.3
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°	249.5	40.4
0°-40°	372.4	60.3
0°-60°	540.6	87.6
0°-90°	617.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	617.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	379	379	379	379	379	
5°	366	372	370	374	377	34
15°	315	323	327	340	349	88
25°	248	256	263	275	290	114
35°	176	185	193	209	227	109
45°	102	114	132	143	155	80
55°	65	71	78	79	78	58
65°	40	47	46	43	44	39
75°	21	26	24	21	21	22
85°	6	8	8	6	5	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	378.6	378.6	378.6	378.6	378.6
2.5°	373.7	379.8	375.7	376.2	377.0
5°	365.6	372.5	370.5	373.7	377.4
7.5°	355.4	362.3	363.1	368.0	372.5
10°	343.2	350.9	352.1	359.5	366.0
12.5°	329.7	338.3	339.9	350.5	359.1
15°	315.1	323.2	326.9	340.3	349.3
17.5°	299.6	307.4	313.1	325.3	335.4
20°	283.3	290.7	298.0	309.0	320.4
22.5°	265.8	274.0	280.9	291.9	304.9
25°	248.3	256.5	263.0	274.8	289.8
27.5°	230.4	238.6	245.1	257.7	274.0
30°	212.1	220.6	227.2	241.4	258.5
32.5°	194.2	202.7	210.1	225.1	243.0
35°	175.9	184.8	192.6	209.2	227.2
37.5°	156.3	166.5	176.3	193.0	210.5
40°	137.6	149.0	160.8	176.3	191.7
42.5°	118.9	131.5	146.1	159.2	173.4
45°	101.8	114.4	131.5	142.9	154.7
47.5°	88.3	98.9	117.2	126.6	137.2
50°	79.4	86.7	103.0	110.3	118.1
52.5°	72.1	78.2	89.6	94.4	98.5
55°	64.7	71.2	78.2	78.6	77.8
57.5°	57.4	64.7	68.4	65.5	67.2
60°	51.3	58.6	60.2	57.4	59.0
62.5°	44.8	52.9	52.9	50.1	50.9
65°	39.5	46.8	45.6	43.2	43.6
67.5°	34.2	41.5	39.5	37.0	37.0
70°	29.3	36.2	33.8	31.3	31.3
72.5°	24.8	30.5	28.9	26.1	25.6
75°	20.8	25.6	23.6	21.2	20.8
77.5°	16.7	20.8	19.1	17.1	16.3
80°	13.0	16.7	14.7	13.0	12.2
82.5°	9.8	12.6	11.0	9.4	8.5
85°	6.5	8.5	7.7	6.1	5.3
87.5°	3.3	5.7	4.9	4.1	3.3
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	13.47	14.91	13.84	15.22	15.54	13.72	15.16	14.08	15.47	15.78
	3H	15.00	16.29	15.38	16.61	16.98	15.07	16.36	15.45	16.69	17.05
	4H	15.56	16.77	15.96	17.12	17.50	15.56	16.76	15.96	17.11	17.49
	6H	15.98	17.10	16.40	17.46	17.86	15.90	17.02	16.32	17.38	17.78
	8H	16.14	17.20	16.57	17.59	17.99	16.01	17.07	16.44	17.46	17.86
	12H	16.25	17.26	16.68	17.64	18.07	16.08	17.09	16.51	17.47	17.90
4H	2H	14.04	15.25	14.44	15.60	15.98	14.24	15.45	14.64	15.80	16.18
	3H	15.85	16.84	16.26	17.25	17.65	15.82	16.81	16.23	17.21	17.62
	4H	16.59	17.49	17.02	17.90	18.34	16.41	17.31	16.84	17.72	18.17
	6H	17.18	17.95	17.63	18.40	18.86	16.88	17.66	17.34	18.10	18.57
	8H	17.39	18.11	17.85	18.56	19.03	17.03	17.76	17.49	18.20	18.67
	12H	17.55	18.20	18.03	18.68	19.15	17.14	17.79	17.62	18.27	18.74
8H	4H	16.85	17.58	17.32	18.03	18.50	16.70	17.43	17.17	17.87	18.34
	6H	17.61	18.21	18.11	18.70	19.18	17.29	17.89	17.79	18.39	18.86
	8H	17.94	18.47	18.45	18.99	19.48	17.51	18.05	18.03	18.56	19.05
	12H	18.22	18.69	18.73	19.19	19.75	17.70	18.17	18.21	18.67	19.23
12H	4H	16.87	17.52	17.35	18.00	18.47	16.73	17.38	17.22	17.86	18.34
	6H	17.66	18.20	18.17	18.71	19.20	17.36	17.90	17.88	18.41	18.90
	8H	18.05	18.53	18.56	19.02	19.59	17.64	18.12	18.16	18.62	19.18