

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: P1057944

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057944  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S290D950-X4F0-XX-UDD-BVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

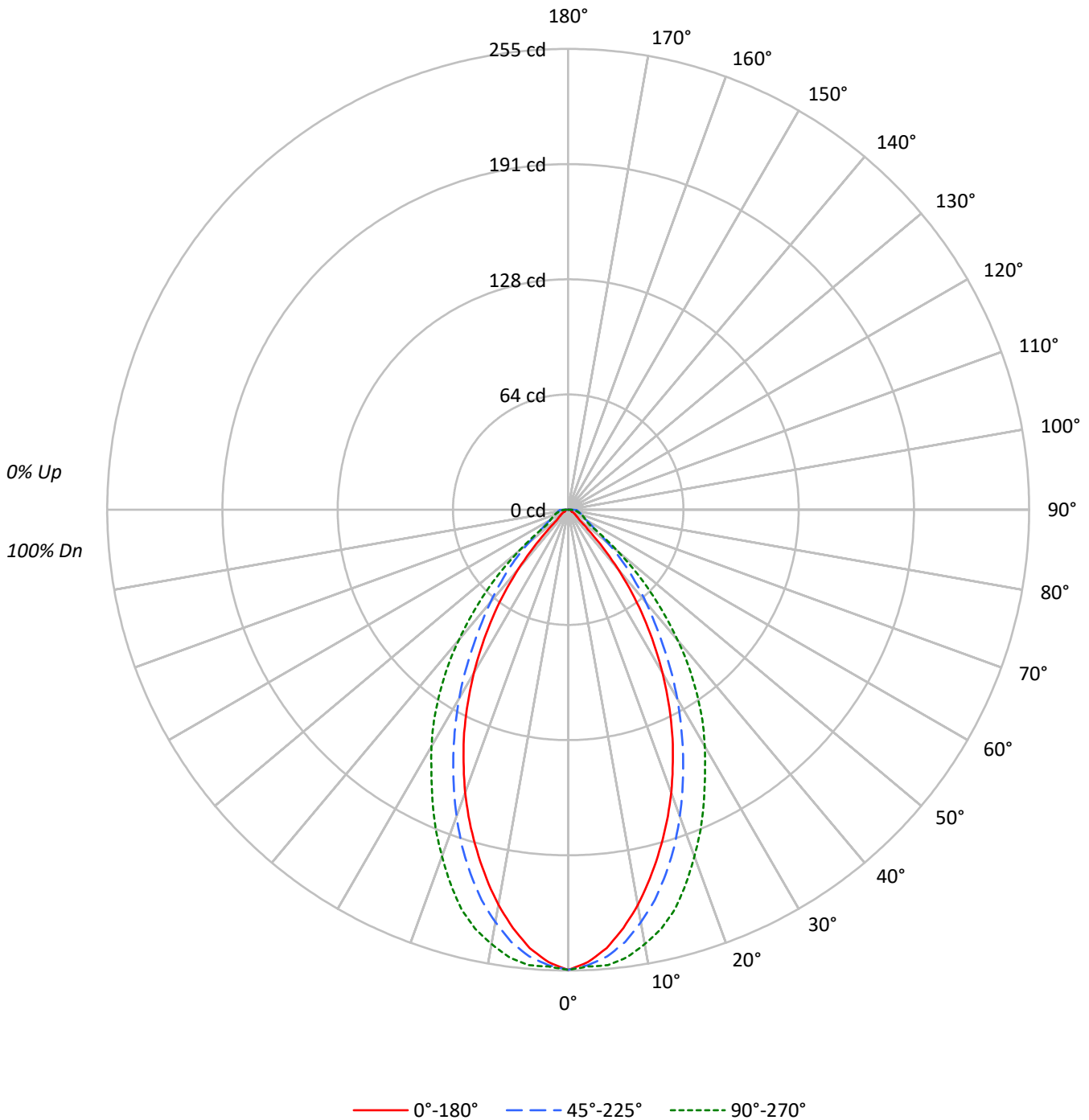
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 277.2 lumens  
Efficiency: N/A  
Efficacy: 22.2 lumens/watt  
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91  
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	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	76	81	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	67	64	71	66	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42

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

	0°	45°	90°
0°	4698	4698	4698
5°	4512	4596	4686
10°	4162	4343	4574
15°	3729	3985	4367
20°	3271	3544	4008
25°	2771	3060	3616
30°	2222	2570	3222
35°	1642	2057	2791
40°	1031	1609	2267
45°	404	1211	1681
50°	198	818	1031
55°	158	537	460
60°	122	435	421
65°	87	410	410
70°	108	415	415
75°	114	463	435
80°	170	606	478
85°	339	1037	699

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 87.5°  
 Luminance: 1904 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	23.3	8.4
10°-20°	58.8	21.2
20°-30°	70.3	25.4
30°-40°	59.2	21.4
40°-50°	33.7	12.2
50°-60°	13.3	4.8
60°-70°	8.4	3.0
70°-80°	6.2	2.2
80°-90°	4.0	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°	152.4	55.0
0°-40°	211.6	76.4
0°-60°	258.6	93.3
0°-90°	277.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	277.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	255	255	255	255	255	
5°	244	249	248	251	253	23
15°	195	202	209	221	229	54
25°	136	142	150	166	178	62
35°	73	79	91	111	124	45
45°	16	27	46	58	64	15
55°	5	11	17	17	14	4
65°	2	9	9	9	9	2
75°	2	6	6	6	6	2
85°	2	4	5	4	3	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	254.6	254.6	254.6	254.6	254.6
2.5°	250.6	255.1	252.2	252.6	253.0
5°	243.6	248.9	248.1	251.0	253.0
7.5°	233.5	239.2	241.2	246.1	249.8
10°	222.1	228.6	231.8	239.6	244.1
12.5°	209.0	216.3	221.2	231.0	237.5
15°	195.2	202.1	208.6	220.8	228.6
17.5°	181.3	188.2	195.2	208.6	216.8
20°	166.6	173.2	180.5	194.8	204.1
22.5°	151.2	158.1	165.4	180.1	191.5
25°	136.1	142.2	150.3	165.8	177.6
27.5°	120.2	126.3	135.3	151.2	163.8
30°	104.3	110.4	120.6	136.9	151.2
32.5°	88.4	94.9	105.9	123.9	138.1
35°	72.9	79.4	91.3	110.8	123.9
37.5°	57.9	65.2	78.2	97.4	109.6
40°	42.8	51.3	66.8	83.9	94.1
42.5°	28.5	39.1	56.2	70.5	79.0
45°	15.5	27.3	46.4	58.3	64.4
47.5°	8.6	17.5	37.1	46.4	50.1
50°	6.9	12.2	28.5	35.4	35.9
52.5°	5.7	11.0	21.2	25.3	23.2
55°	4.9	10.6	16.7	17.1	14.3
57.5°	4.1	10.2	13.9	12.2	12.2
60°	3.3	10.2	11.8	11.0	11.4
62.5°	2.4	10.2	10.6	9.8	10.2
65°	2.0	9.4	9.4	9.0	9.4
67.5°	2.0	8.6	8.6	8.1	8.6
70°	2.0	8.1	7.7	7.7	7.7
72.5°	1.6	7.3	7.3	6.9	6.9
75°	1.6	6.5	6.5	6.1	6.1
77.5°	1.6	6.1	6.1	5.7	5.3
80°	1.6	5.3	5.7	5.3	4.5
82.5°	1.6	4.9	5.3	4.9	3.7
85°	1.6	4.5	4.9	4.5	3.3
87.5°	1.2	4.5	4.5	3.7	2.4
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	5.08	6.30	5.44	6.61	6.93
	3H	4.61	5.70	4.99	6.03	6.39	7.05	8.14	7.43	8.47	8.83
	4H	5.16	6.17	5.56	6.52	6.91	7.96	8.98	8.37	9.33	9.71
	6H	5.70	6.63	6.12	7.01	7.40	8.85	9.78	9.27	10.16	10.55
	8H	5.99	6.87	6.43	7.27	7.67	9.26	10.14	9.70	10.54	10.94
	12H	6.35	7.19	6.78	7.57	8.00	9.72	10.56	10.15	10.94	11.37
4H	2H	4.27	5.28	4.67	5.63	6.02	5.71	6.72	6.11	7.07	7.45
	3H	6.45	7.28	6.86	7.69	8.09	7.94	8.78	8.36	9.18	9.59
	4H	7.49	8.24	7.93	8.66	9.11	9.01	9.76	9.45	10.18	10.63
	6H	8.39	9.03	8.85	9.48	9.95	10.13	10.78	10.60	11.23	11.69
	8H	8.77	9.37	9.24	9.82	10.29	10.66	11.27	11.13	11.71	12.19
	12H	9.19	9.72	9.67	10.20	10.68	11.25	11.78	11.73	12.27	12.74
8H	4H	8.29	8.90	8.76	9.35	9.82	9.51	10.11	9.98	10.56	11.03
	6H	9.68	10.17	10.18	10.67	11.15	10.91	11.41	11.41	11.90	12.39
	8H	10.40	10.84	10.92	11.36	11.85	11.66	12.10	12.18	12.62	13.11
	12H	11.15	11.54	11.67	12.04	12.61	12.50	12.89	13.02	13.39	13.96
12H	4H	8.46	8.99	8.95	9.48	9.95	9.61	10.14	10.09	10.62	11.10
	6H	10.01	10.46	10.53	10.97	11.47	11.13	11.57	11.65	12.09	12.58
	8H	10.93	11.32	11.44	11.82	12.39	12.02	12.41	12.54	12.91	13.48