

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: P1057902

Luminaire Tested: S122RDRP-S290D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057902  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-56)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S290D850-X4F0-XX-UDD-SVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

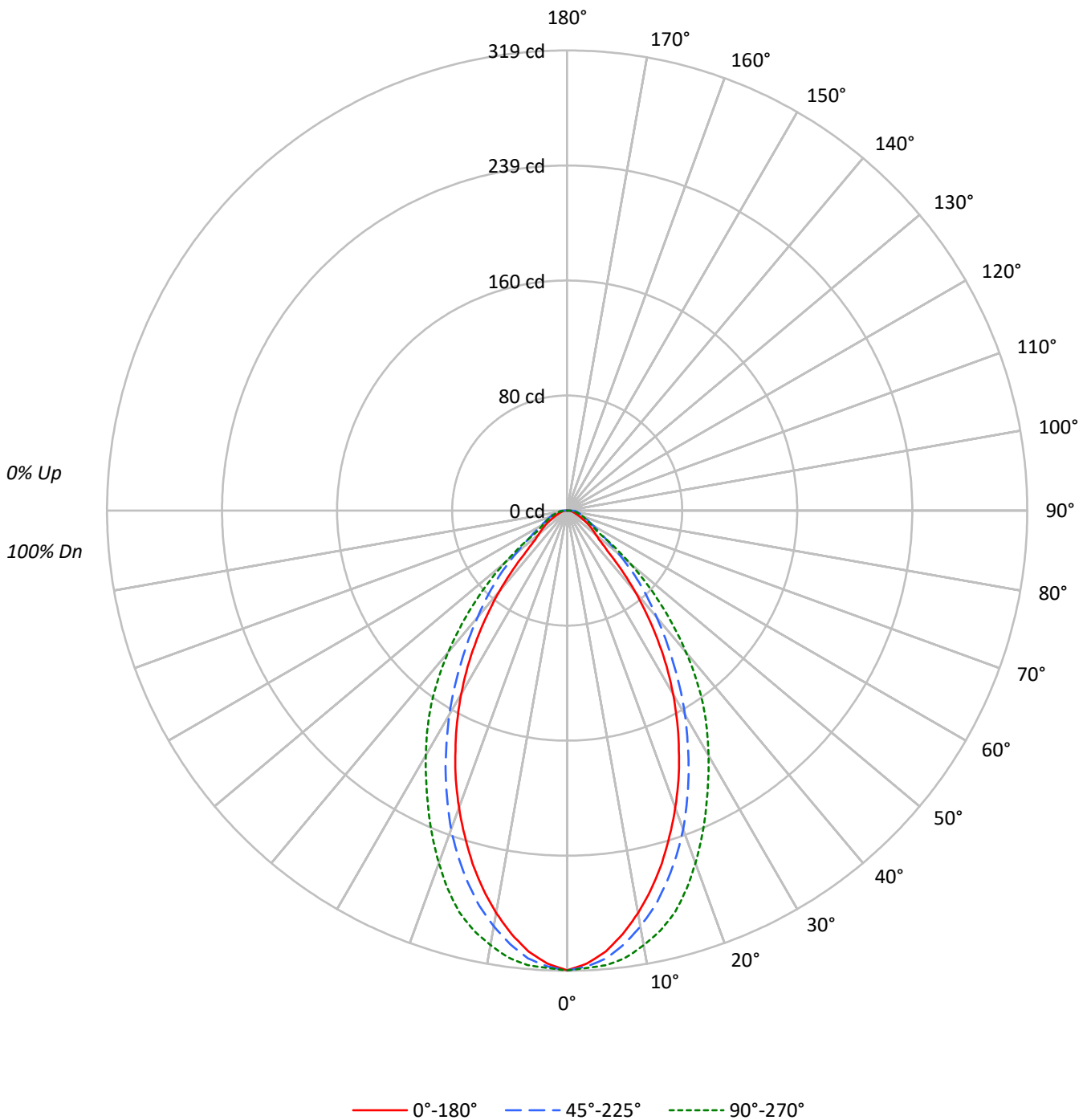
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 386.5 lumens  
Efficiency: N/A  
Efficacy: 30.9 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95  
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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39

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

	0°	45°	90°
0°	5881	5881	5881
5°	5683	5772	5859
10°	5306	5482	5732
15°	4839	5093	5509
20°	4304	4621	5106
25°	3732	4060	4638
30°	3128	3482	4176
35°	2464	2881	3701
40°	1756	2327	3090
45°	1039	1842	2398
50°	746	1332	1631
55°	624	959	824
60°	506	768	698
65°	415	681	642
70°	356	664	615
75°	335	677	606
80°	351	808	659
85°	508	1313	805

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2398 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.2	7.6
10°-20°	75.1	19.4
20°-30°	92.6	24.0
30°-40°	82.4	21.3
40°-50°	52.6	13.6
50°-60°	25.2	6.5
60°-70°	14.8	3.8
70°-80°	9.5	2.4
80°-90°	5.1	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°	197.0	51.0
0°-40°	279.4	72.3
0°-60°	357.2	92.4
0°-90°	386.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	386.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	319	319	319	319	319	
5°	307	312	312	314	316	29
15°	253	260	267	279	288	71
25°	183	190	199	214	228	84
35°	109	118	128	147	164	68
45°	40	52	71	82	92	33
55°	19	25	30	29	26	18
65°	10	17	16	14	15	10
75°	5	10	10	9	8	5
85°	2	6	6	5	4	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	318.7	318.7	318.7	318.7	318.7
2.5°	314.4	319.6	316.3	316.3	317.3
5°	306.8	312.5	311.6	313.5	316.3
7.5°	296.0	302.1	303.1	308.3	312.5
10°	283.2	289.8	292.6	300.2	305.9
12.5°	269.0	275.6	280.8	290.3	298.3
15°	253.3	259.5	266.6	278.9	288.4
17.5°	236.3	244.3	251.4	264.2	275.1
20°	219.2	226.8	235.3	247.7	260.0
22.5°	201.7	208.8	217.3	230.1	244.3
25°	183.3	190.4	199.4	213.6	227.8
27.5°	165.3	172.4	180.9	196.5	211.7
30°	146.8	153.9	163.4	179.5	196.0
32.5°	128.3	135.9	145.4	162.9	180.4
35°	109.4	117.9	127.9	147.3	164.3
37.5°	90.9	99.4	111.8	130.7	146.8
40°	72.9	82.9	96.6	113.6	128.3
42.5°	55.4	66.3	83.3	97.1	109.9
45°	39.8	51.6	70.6	81.9	91.9
47.5°	30.3	38.8	58.2	67.2	74.3
50°	26.0	31.3	46.4	53.0	56.8
52.5°	22.7	27.5	36.9	40.2	40.2
55°	19.4	25.1	29.8	28.9	25.6
57.5°	16.6	22.7	24.6	20.8	21.8
60°	13.7	20.8	20.8	18.5	18.9
62.5°	11.4	19.4	18.0	16.1	16.6
65°	9.5	17.0	15.6	14.2	14.7
67.5°	7.6	15.2	13.7	12.8	12.8
70°	6.6	13.7	12.3	11.4	11.4
72.5°	5.7	11.8	10.9	9.9	9.9
75°	4.7	10.4	9.5	9.0	8.5
77.5°	4.3	9.0	8.5	7.6	7.1
80°	3.3	7.6	7.6	7.1	6.2
82.5°	2.8	6.6	6.6	6.2	5.2
85°	2.4	5.7	6.2	5.2	3.8
87.5°	1.9	5.2	5.2	4.3	2.8
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	7.82	9.10	8.19	9.41	9.72	7.61	8.89	7.98	9.20	9.51
	3H	9.06	10.19	9.44	10.52	10.89	9.21	10.35	9.59	10.68	11.04
	4H	9.51	10.56	9.91	10.92	11.30	9.92	10.98	10.33	11.33	11.72
	6H	9.89	10.86	10.30	11.23	11.63	10.58	11.55	10.99	11.92	12.32
	8H	10.04	10.96	10.47	11.35	11.76	10.91	11.83	11.34	12.22	12.63
	12H	10.20	11.08	10.63	11.46	11.89	11.21	12.09	11.64	12.47	12.90
4H	2H	8.37	9.43	8.77	9.78	10.16	8.20	9.26	8.61	9.61	10.00
	3H	10.07	10.94	10.48	11.34	11.74	10.05	10.92	10.46	11.32	11.73
	4H	10.86	11.64	11.29	12.06	12.50	10.92	11.70	11.35	12.12	12.56
	6H	11.51	12.18	11.97	12.63	13.10	11.77	12.44	12.23	12.89	13.36
	8H	11.75	12.39	12.22	12.83	13.30	12.19	12.83	12.66	13.27	13.75
	12H	12.00	12.56	12.49	13.04	13.52	12.60	13.16	13.08	13.64	14.11
8H	4H	11.28	11.91	11.75	12.36	12.83	11.34	11.97	11.81	12.42	12.89
	6H	12.26	12.78	12.76	13.28	13.76	12.43	12.95	12.93	13.44	13.92
	8H	12.75	13.21	13.27	13.73	14.22	13.02	13.49	13.54	14.00	14.50
	12H	13.25	13.67	13.77	14.16	14.73	13.62	14.04	14.14	14.53	15.10
12H	4H	11.35	11.91	11.83	12.39	12.86	11.41	11.97	11.90	12.46	12.93
	6H	12.43	12.90	12.95	13.41	13.90	12.59	13.06	13.11	13.57	14.07
	8H	13.06	13.47	13.58	13.97	14.54	13.31	13.72	13.82	14.21	14.79