

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: P1057884

Luminaire Tested: S122RDRP-S290D835-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057884  
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-S290D835-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: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

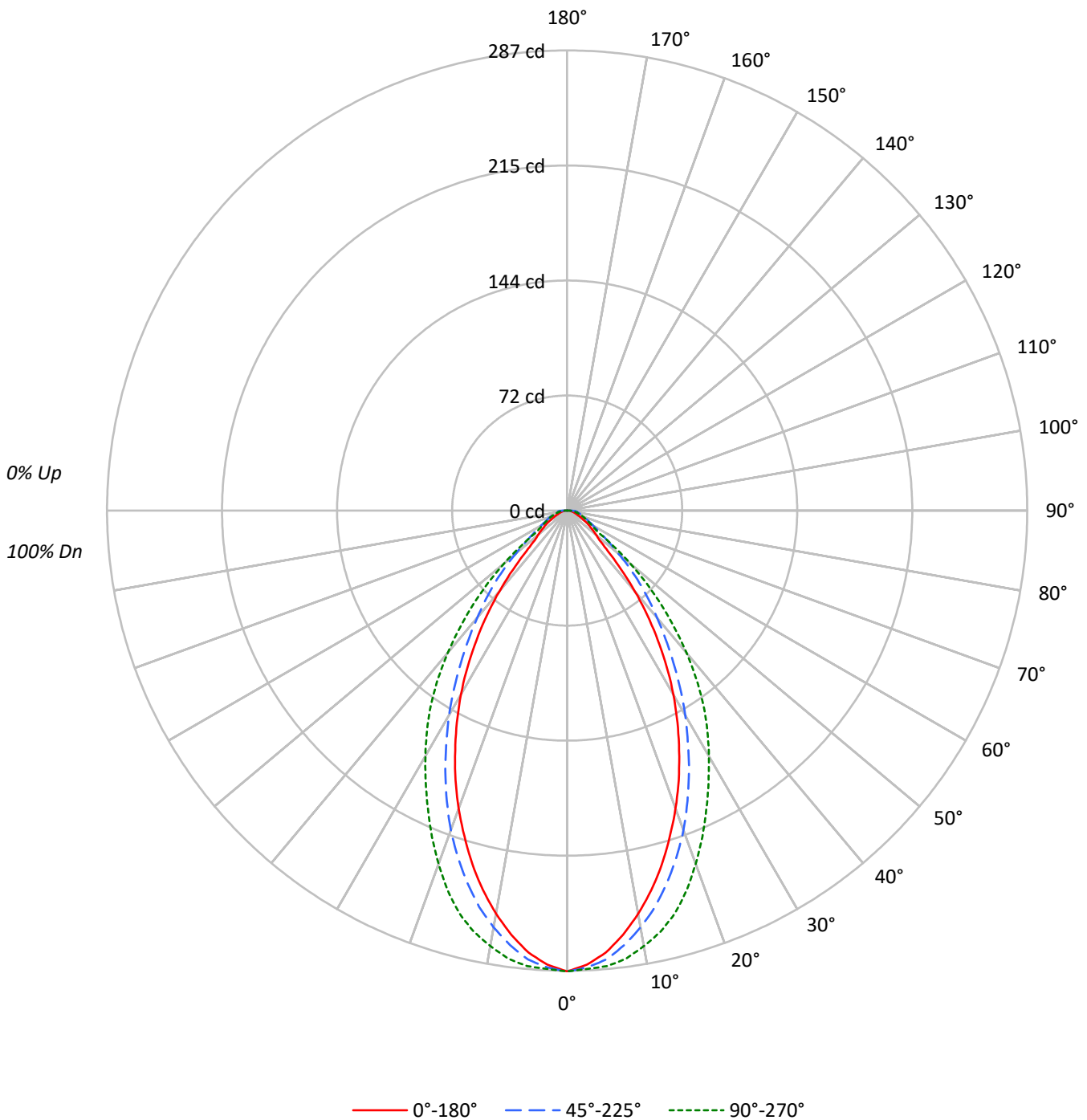
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 348.5 lumens  
Efficiency: N/A  
Efficacy: 27.9 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 (Ain): 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°	5303	5303	5303
5°	5125	5205	5283
10°	4784	4945	5168
15°	4363	4592	4967
20°	3882	4167	4603
25°	3363	3661	4182
30°	2821	3139	3767
35°	2221	2597	3338
40°	1585	2098	2787
45°	937	1660	2161
50°	675	1200	1470
55°	563	865	743
60°	458	694	631
65°	371	616	576
70°	324	599	550
75°	307	606	549
80°	319	723	595
85°	445	1186	720

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2161 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.4	7.6
10°-20°	67.7	19.4
20°-30°	83.5	24.0
30°-40°	74.3	21.3
40°-50°	47.4	13.6
50°-60°	22.8	6.5
60°-70°	13.4	3.8
70°-80°	8.5	2.4
80°-90°	4.6	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°	177.6	51.0
0°-40°	251.9	72.3
0°-60°	322.1	92.4
0°-90°	348.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	348.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	287	287	287	287	287	
5°	277	282	281	283	285	26
15°	228	234	240	252	260	64
25°	165	172	180	193	205	76
35°	99	106	115	133	148	61
45°	36	46	64	74	83	30
55°	18	23	27	26	23	16
65°	8	15	14	13	13	9
75°	4	9	8	8	8	5
85°	2	5	6	5	3	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	287.4	287.4	287.4	287.4	287.4
2.5°	283.5	288.2	285.2	285.2	286.1
5°	276.7	281.8	281.0	282.7	285.2
7.5°	266.9	272.4	273.3	278.0	281.8
10°	255.3	261.3	263.9	270.7	275.8
12.5°	242.5	248.5	253.2	261.7	269.0
15°	228.4	234.0	240.4	251.5	260.0
17.5°	213.1	220.3	226.7	238.3	248.1
20°	197.7	204.5	212.2	223.3	234.4
22.5°	181.9	188.3	196.0	207.5	220.3
25°	165.2	171.6	179.8	192.6	205.4
27.5°	149.0	155.4	163.1	177.2	190.9
30°	132.4	138.8	147.3	161.8	176.8
32.5°	115.7	122.5	131.1	146.9	162.7
35°	98.6	106.3	115.3	132.8	148.2
37.5°	82.0	89.7	100.8	117.8	132.4
40°	65.8	74.7	87.1	102.5	115.7
42.5°	50.0	59.8	75.1	87.5	99.1
45°	35.9	46.5	63.6	73.9	82.8
47.5°	27.3	35.0	52.5	60.6	67.0
50°	23.5	28.2	41.8	47.8	51.2
52.5°	20.5	24.8	33.3	36.3	36.3
55°	17.5	22.6	26.9	26.0	23.1
57.5°	14.9	20.5	22.2	18.8	19.6
60°	12.4	18.8	18.8	16.7	17.1
62.5°	10.2	17.5	16.2	14.5	14.9
65°	8.5	15.4	14.1	12.8	13.2
67.5°	6.8	13.7	12.4	11.5	11.5
70°	6.0	12.4	11.1	10.2	10.2
72.5°	5.1	10.7	9.8	9.0	9.0
75°	4.3	9.4	8.5	8.1	7.7
77.5°	3.8	8.1	7.7	6.8	6.4
80°	3.0	6.8	6.8	6.4	5.6
82.5°	2.6	6.0	6.0	5.6	4.7
85°	2.1	5.1	5.6	4.7	3.4
87.5°	1.7	4.7	4.7	3.8	2.6
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	7.47	8.74	7.83	9.06	9.37	7.26	8.54	7.63	8.85	9.16
	3H	8.70	9.84	9.08	10.17	10.53	8.84	9.98	9.22	10.31	10.67
	4H	9.16	10.21	9.56	10.56	10.95	9.56	10.62	9.97	10.97	11.36
	6H	9.53	10.50	9.95	10.88	11.27	10.22	11.19	10.63	11.56	11.96
	8H	9.69	10.61	10.12	11.00	11.41	10.55	11.47	10.98	11.86	12.27
	12H	9.84	10.73	10.28	11.11	11.54	10.85	11.73	11.28	12.11	12.54
4H	2H	8.02	9.08	8.42	9.43	9.81	7.85	8.91	8.26	9.26	9.65
	3H	9.71	10.59	10.13	10.99	11.39	9.68	10.55	10.09	10.96	11.36
	4H	10.51	11.29	10.95	11.71	12.16	10.56	11.34	10.99	11.76	12.20
	6H	11.15	11.83	11.61	12.27	12.74	11.40	12.08	11.87	12.53	12.99
	8H	11.40	12.03	11.87	12.48	12.95	11.83	12.46	12.30	12.91	13.38
	12H	11.65	12.21	12.13	12.69	13.16	12.23	12.79	12.72	13.28	13.75
8H	4H	10.93	11.56	11.40	12.01	12.48	10.97	11.61	11.44	12.05	12.52
	6H	11.90	12.42	12.40	12.91	13.39	12.06	12.58	12.56	13.08	13.56
	8H	12.39	12.86	12.92	13.38	13.87	12.66	13.13	13.18	13.64	14.13
	12H	12.89	13.31	13.41	13.80	14.37	13.26	13.67	13.78	14.17	14.74
12H	4H	10.99	11.55	11.48	12.04	12.51	11.05	11.61	11.53	12.09	12.57
	6H	12.07	12.53	12.59	13.05	13.54	12.22	12.69	12.75	13.21	13.70
	8H	12.71	13.12	13.22	13.62	14.19	12.95	13.36	13.46	13.85	14.42