

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058352

Luminaire Tested: S122RDR-H290D950-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058352  
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: S122RDR-H290D950-X4F0-XX-UDD-SVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

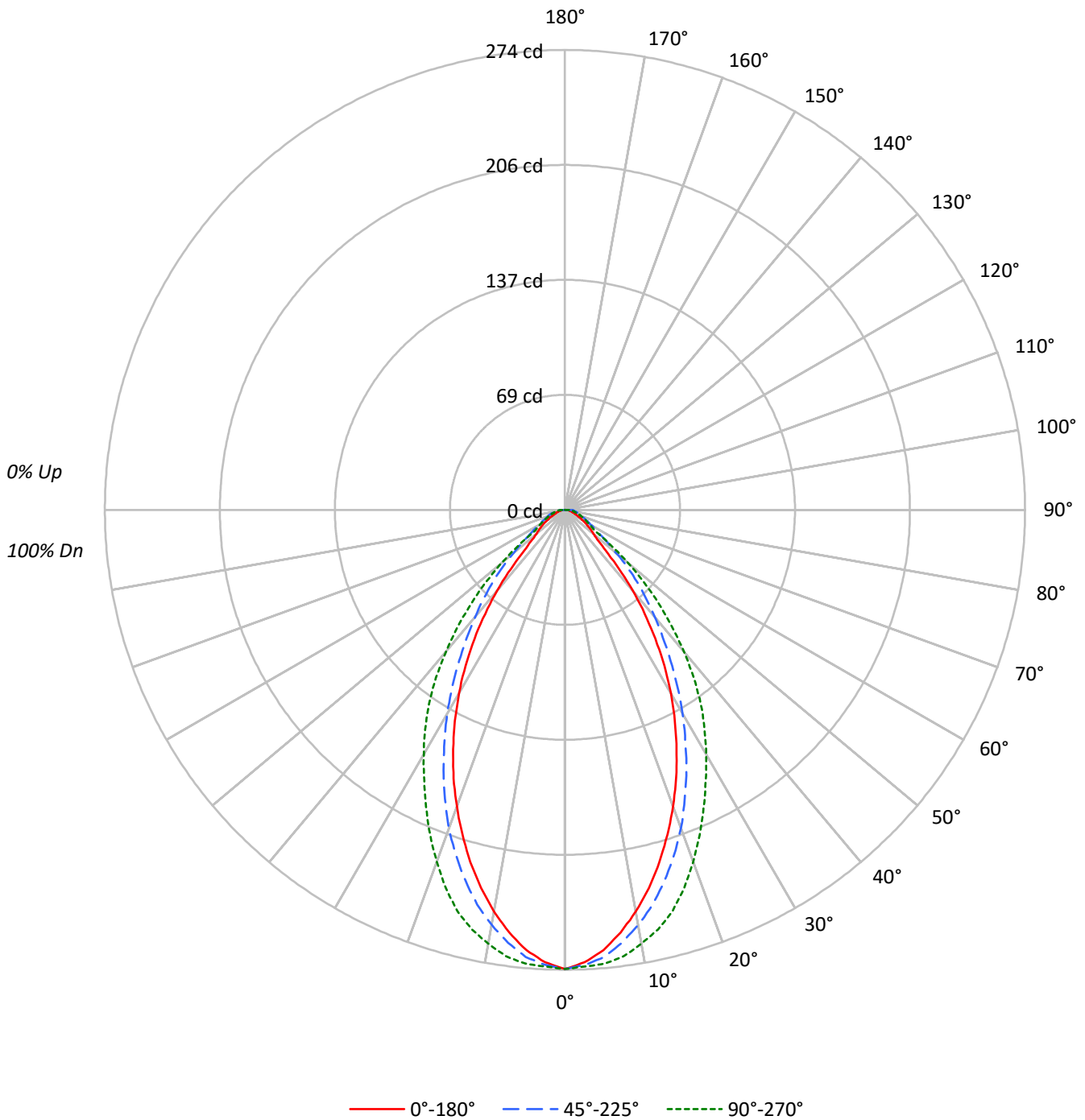
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 331.7 lumens  
Efficiency: N/A  
Efficacy: 28.4 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): 11.7  
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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89				89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72				72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65				65
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59				59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50				50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46				46
9	67	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	42				42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39				39

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

	0°	45°	90°
0°	5047	5047	5047
5°	4877	4953	5027
10°	4553	4705	4918
15°	4153	4371	4728
20°	3694	3967	4381
25°	3203	3484	3980
30°	2685	2987	3584
35°	2115	2471	3176
40°	1508	1997	2652
45°	890	1579	2056
50°	640	1143	1401
55°	537	824	705
60°	435	661	602
65°	354	585	550
70°	308	572	529
75°	292	577	520
80°	298	691	563
85°	423	1122	699

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2056 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.1	7.6
10°-20°	64.4	19.4
20°-30°	79.5	24.0
30°-40°	70.7	21.3
40°-50°	45.1	13.6
50°-60°	21.7	6.5
60°-70°	12.7	3.8
70°-80°	8.1	2.4
80°-90°	4.3	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°	169.0	51.0
0°-40°	239.7	72.3
0°-60°	306.5	92.4
0°-90°	331.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	331.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	274	274	274	274	274	
5°	263	268	267	269	271	24
15°	217	223	229	239	248	61
25°	157	163	171	183	196	72
35°	94	101	110	126	141	58
45°	34	44	60	70	79	29
55°	17	22	26	25	22	15
65°	8	15	13	12	13	8
75°	4	9	8	8	7	4
85°	2	5	5	4	3	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	273.5	273.5	273.5	273.5	273.5
2.5°	269.8	274.3	271.4	271.4	272.3
5°	263.3	268.2	267.4	269.0	271.4
7.5°	254.0	259.2	260.1	264.5	268.2
10°	243.0	248.7	251.1	257.6	262.5
12.5°	230.8	236.5	241.0	249.1	256.0
15°	217.4	222.7	228.8	239.3	247.5
17.5°	202.8	209.7	215.8	226.7	236.1
20°	188.1	194.6	202.0	212.5	223.1
22.5°	173.1	179.2	186.5	197.5	209.7
25°	157.3	163.4	171.1	183.3	195.5
27.5°	141.8	147.9	155.2	168.6	181.6
30°	126.0	132.1	140.2	154.0	168.2
32.5°	110.1	116.6	124.7	139.8	154.8
35°	93.9	101.2	109.7	126.4	141.0
37.5°	78.0	85.3	95.9	112.2	126.0
40°	62.6	71.1	82.9	97.5	110.1
42.5°	47.5	56.9	71.5	83.3	94.3
45°	34.1	44.3	60.5	70.3	78.8
47.5°	26.0	33.3	50.0	57.7	63.8
50°	22.3	26.8	39.8	45.5	48.8
52.5°	19.5	23.6	31.7	34.5	34.5
55°	16.7	21.5	25.6	24.8	21.9
57.5°	14.2	19.5	21.1	17.9	18.7
60°	11.8	17.9	17.9	15.8	16.3
62.5°	9.8	16.7	15.4	13.8	14.2
65°	8.1	14.6	13.4	12.2	12.6
67.5°	6.5	13.0	11.8	11.0	11.0
70°	5.7	11.8	10.6	9.8	9.8
72.5°	4.9	10.2	9.3	8.5	8.5
75°	4.1	8.9	8.1	7.7	7.3
77.5°	3.7	7.7	7.3	6.5	6.1
80°	2.8	6.5	6.5	6.1	5.3
82.5°	2.4	5.7	5.7	5.3	4.5
85°	2.0	4.9	5.3	4.5	3.3
87.5°	1.6	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	7.29	8.57	7.66	8.88	9.20	7.09	8.37	7.46	8.68	9.00
	3H	8.53	9.66	8.91	9.99	10.36	8.69	9.83	9.07	10.16	10.52
	4H	8.98	10.04	9.38	10.39	10.78	9.40	10.46	9.80	10.81	11.19
	6H	9.36	10.34	9.78	10.71	11.10	10.05	11.03	10.47	11.40	11.79
	8H	9.51	10.43	9.94	10.83	11.23	10.39	11.31	10.82	11.70	12.10
	12H	9.67	10.55	10.10	10.93	11.36	10.69	11.57	11.12	11.95	12.39
4H	2H	7.84	8.90	8.24	9.25	9.63	7.68	8.74	8.08	9.09	9.48
	3H	9.54	10.41	9.95	10.82	11.22	9.52	10.40	9.94	10.80	11.20
	4H	10.33	11.11	10.77	11.53	11.98	10.39	11.17	10.83	11.59	12.04
	6H	10.98	11.65	11.44	12.10	12.57	11.24	11.91	11.70	12.36	12.83
	8H	11.22	11.85	11.69	12.30	12.77	11.67	12.30	12.14	12.75	13.22
	12H	11.46	12.02	11.95	12.51	12.98	12.07	12.63	12.56	13.12	13.59
8H	4H	10.75	11.38	11.22	11.83	12.30	10.81	11.44	11.28	11.89	12.36
	6H	11.73	12.25	12.23	12.74	13.22	11.89	12.41	12.40	12.91	13.39
	8H	12.22	12.68	12.74	13.20	13.69	12.49	12.96	13.01	13.47	13.97
	12H	12.72	13.13	13.23	13.63	14.20	13.10	13.51	13.62	14.01	14.58
12H	4H	10.82	11.38	11.30	11.86	12.33	10.88	11.44	11.37	11.93	12.40
	6H	11.89	12.36	12.42	12.88	13.37	12.06	12.53	12.58	13.04	13.53
	8H	12.53	12.94	13.05	13.44	14.01	12.78	13.19	13.29	13.68	14.25