

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: P1058324

Luminaire Tested: S122RDRP-H290D930-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058324  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-59)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-H290D930-X4F0-XX-UDD-SVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

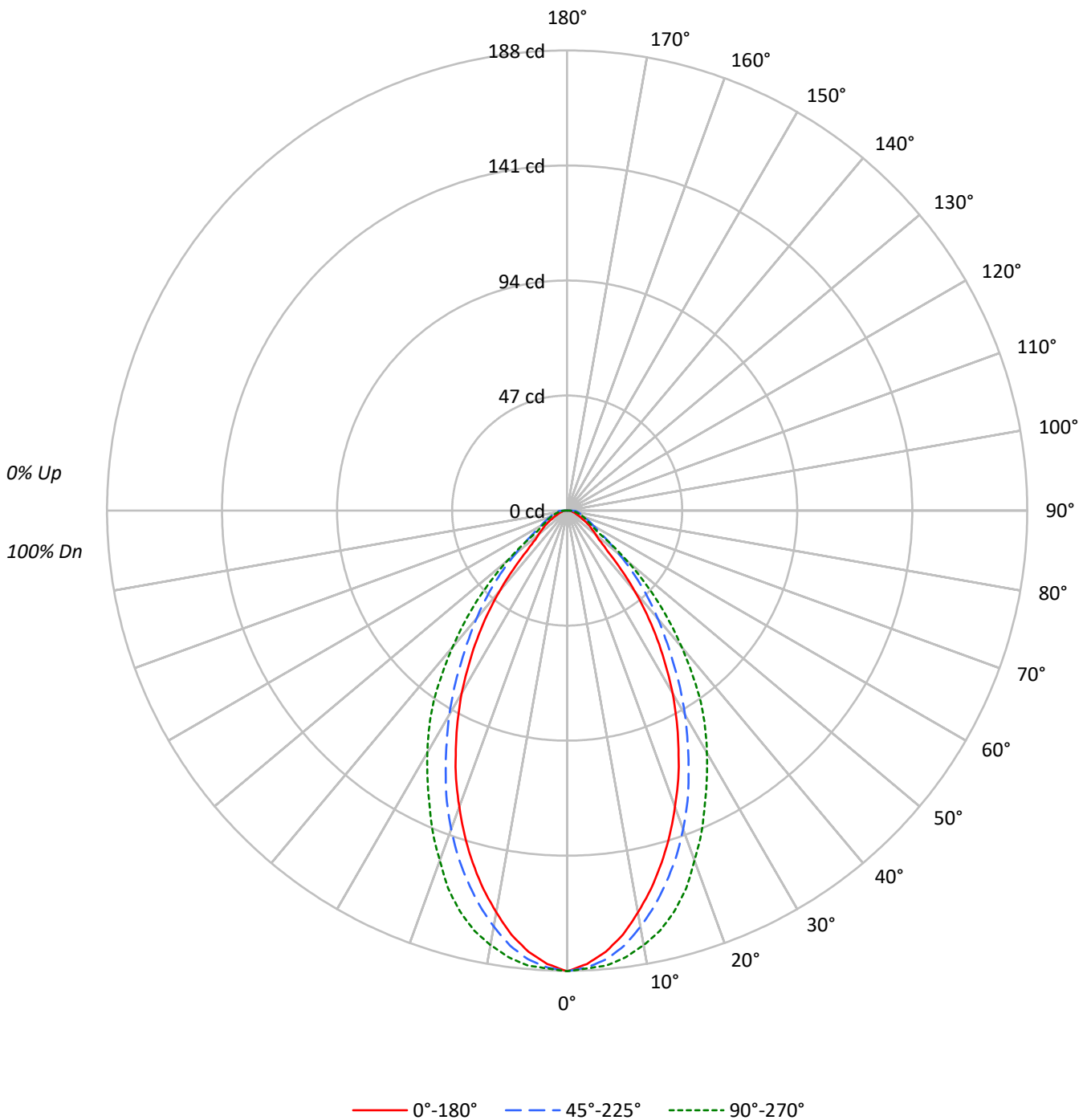
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 227.0 lumens  
Efficiency: N/A  
Efficacy: 19.4 lumens/watt  
Spacing Criteria (0/90/45): 0.82 / 0.97 / 0.94  
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 (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	101	99	97	98	96	94	94	93	91	89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	82	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	66	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	44	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°	3473	3473	3473
5°	3351	3408	3455
10°	3123	3234	3376
15°	2846	2997	3236
20°	2529	2720	2987
25°	2191	2390	2708
30°	1835	2050	2433
35°	1446	1696	2142
40°	1038	1387	1756
45°	608	1096	1360
50°	439	798	916
55°	370	569	479
60°	295	461	410
65°	245	410	380
70°	205	394	356
75°	200	421	349
80°	223	521	372
85°	360	805	508

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 1360 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	17.2	7.6
10°-20°	44.2	19.5
20°-30°	54.3	23.9
30°-40°	48.0	21.1
40°-50°	30.6	13.5
50°-60°	14.9	6.6
60°-70°	8.9	3.9
70°-80°	5.7	2.5
80°-90°	3.1	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°	115.7	51.0
0°-40°	163.7	72.1
0°-60°	209.3	92.2
0°-90°	227.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	227.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	188	188	188	188	188	
5°	181	185	184	185	186	17
15°	149	153	157	164	169	42
25°	108	112	117	125	133	49
35°	64	68	75	86	95	40
45°	23	30	42	47	52	20
55°	12	15	18	17	15	10
65°	6	10	9	9	9	6
75°	3	6	6	5	5	3
85°	2	4	4	4	2	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	188.2	188.2	188.2	188.2	188.2
2.5°	185.4	188.9	186.8	186.8	187.2
5°	180.9	184.7	184.0	184.7	186.5
7.5°	174.7	178.5	179.2	181.9	184.0
10°	166.7	170.5	172.6	177.1	180.2
12.5°	158.3	162.2	165.3	171.2	175.7
15°	149.0	153.1	156.9	163.9	169.4
17.5°	139.2	143.4	148.3	155.2	161.8
20°	128.8	132.6	138.5	145.1	152.1
22.5°	118.7	122.2	128.5	134.7	143.1
25°	107.6	111.5	117.4	124.7	133.0
27.5°	96.9	100.7	106.6	114.9	123.6
30°	86.1	89.6	96.2	104.9	114.2
32.5°	75.0	78.5	85.8	95.1	104.9
35°	64.2	67.7	75.3	85.8	95.1
37.5°	53.5	57.3	66.0	75.7	83.7
40°	43.1	47.6	57.6	66.0	72.9
42.5°	32.6	38.9	49.7	56.6	62.2
45°	23.3	29.9	42.0	47.2	52.1
47.5°	17.7	22.9	34.7	38.5	41.7
50°	15.3	18.7	27.8	30.6	31.9
52.5°	13.2	16.7	22.2	23.3	22.6
55°	11.5	15.3	17.7	16.7	14.9
57.5°	9.7	14.2	14.6	12.5	12.8
60°	8.0	12.8	12.5	10.8	11.1
62.5°	6.6	11.8	10.8	9.7	9.7
65°	5.6	10.4	9.4	8.7	8.7
67.5°	4.5	9.4	8.3	7.6	7.6
70°	3.8	8.3	7.3	6.6	6.6
72.5°	3.5	7.3	6.6	5.9	5.9
75°	2.8	6.2	5.9	5.2	4.9
77.5°	2.4	5.2	5.2	4.9	4.2
80°	2.1	4.5	4.9	4.2	3.5
82.5°	2.1	4.2	4.2	3.8	2.8
85°	1.7	3.5	3.8	3.5	2.4
87.5°	1.0	3.1	3.1	2.8	1.7
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	6.34	7.61	6.70	7.93	8.24	5.88	7.15	6.24	7.47	7.78
	3H	7.51	8.65	7.89	8.98	9.35	7.43	8.57	7.81	8.90	9.26
	4H	7.95	9.01	8.35	9.36	9.74	8.12	9.18	8.52	9.53	9.92
	6H	8.29	9.27	8.71	9.64	10.03	8.78	9.76	9.19	10.13	10.52
	8H	8.49	9.42	8.92	9.81	10.21	9.07	10.00	9.50	10.39	10.79
	12H	8.71	9.59	9.14	9.98	10.41	9.38	10.27	9.82	10.65	11.08
4H	2H	6.84	7.91	7.25	8.26	8.64	6.48	7.54	6.88	7.89	8.28
	3H	8.49	9.37	8.90	9.77	10.17	8.27	9.15	8.69	9.55	9.96
	4H	9.25	10.04	9.69	10.46	10.90	9.12	9.90	9.55	10.32	10.77
	6H	9.85	10.53	10.32	10.98	11.45	9.99	10.67	10.45	11.11	11.58
	8H	10.16	10.79	10.63	11.24	11.71	10.38	11.02	10.85	11.46	11.93
	12H	10.47	11.03	10.96	11.52	11.99	10.81	11.38	11.30	11.86	12.33
8H	4H	9.67	10.31	10.14	10.75	11.23	9.58	10.21	10.05	10.66	11.13
	6H	10.62	11.14	11.12	11.64	12.12	10.70	11.22	11.20	11.72	12.20
	8H	11.18	11.65	11.70	12.16	12.65	11.28	11.75	11.80	12.26	12.76
	12H	11.75	12.16	12.26	12.65	13.23	11.95	12.36	12.46	12.85	13.43
12H	4H	9.74	10.31	10.23	10.79	11.26	9.66	10.22	10.15	10.71	11.18
	6H	10.81	11.28	11.33	11.79	12.29	10.89	11.36	11.41	11.87	12.36
	8H	11.51	11.93	12.03	12.42	12.99	11.60	12.01	12.11	12.51	13.08