

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: P1059692

Luminaire Tested: S123RDR-H560D927-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059692  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-H560D927-X4F0-XX-UDD-SVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

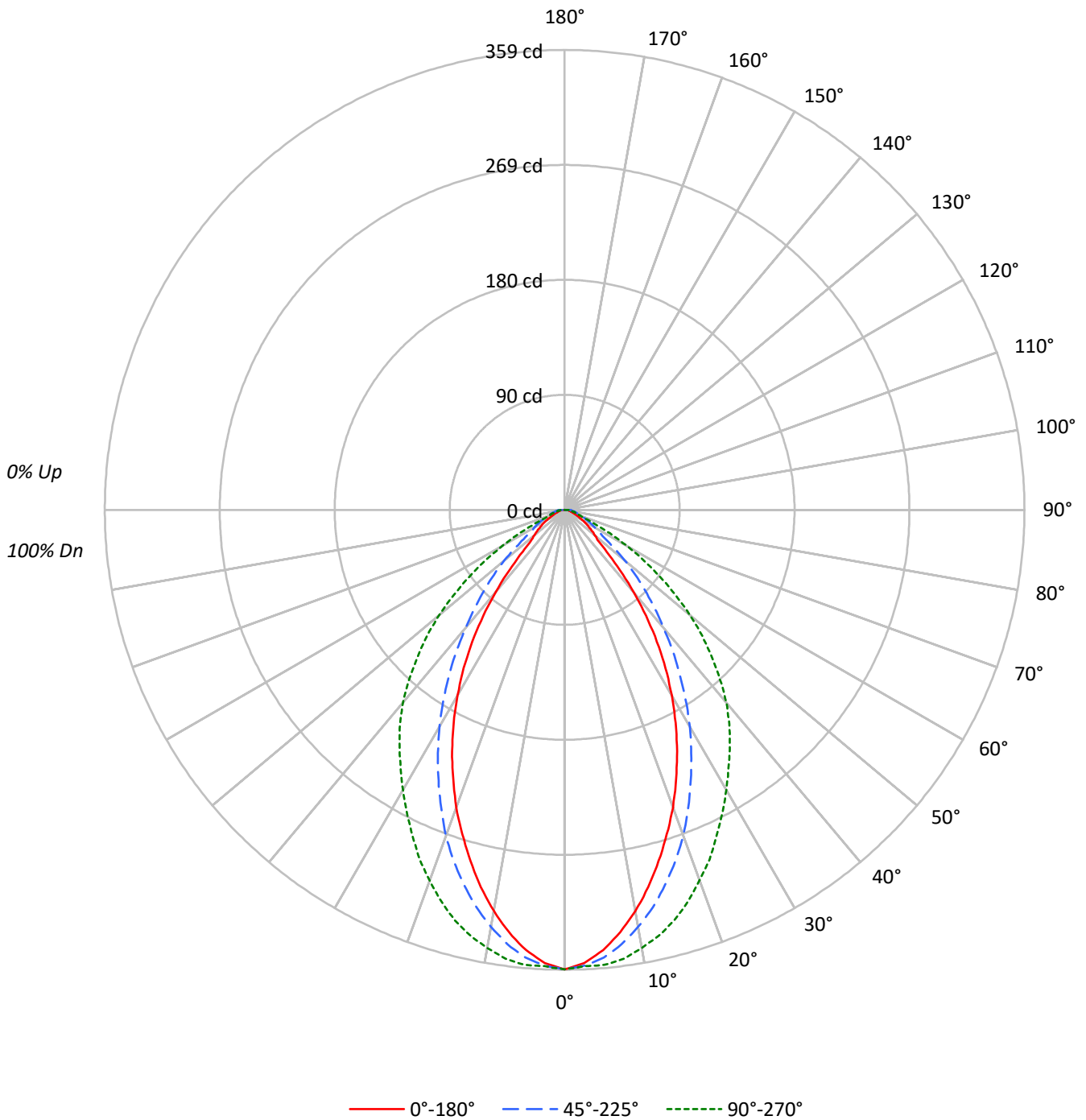
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 480.4 lumens  
Efficiency: N/A  
Efficacy: 27.6 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.4  
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	101	99	97	98	96	94	94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	91	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	74	67	61	83	73	66	61	71	65	61	69	64	60	68	63	59	58
6	79	68	61	56	78	67	60	55	66	60	55	64	59	54	63	58	54	52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48
8	70	58	51	46	69	58	51	46	57	50	46	56	50	46	54	49	45	44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	50	43	39	49	43	39	48	43	39	37

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

	0°	45°	90°
0°	4212	4212	4212
5°	4068	4136	4203
10°	3791	3941	4140
15°	3450	3686	4030
20°	3089	3384	3848
25°	2694	3019	3637
30°	2266	2648	3422
35°	1802	2245	3221
40°	1285	1830	3011
45°	766	1470	2695
50°	564	1120	2335
55°	471	762	1855
60°	380	627	1303
65°	306	539	697
70°	251	467	433
75°	236	454	404
80°	250	494	392
85°	350	701	498

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2695 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.0	6.9
10°-20°	85.6	17.8
20°-30°	109.2	22.7
30°-40°	102.7	21.4
40°-50°	73.8	15.4
50°-60°	42.3	8.8
60°-70°	19.4	4.0
70°-80°	9.7	2.0
80°-90°	4.7	1.0
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°	227.8	47.4
0°-40°	330.5	68.8
0°-60°	446.6	93.0
0°-90°	480.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	480.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	359	359	359	359	359	
5°	345	352	351	354	357	32
15°	284	294	303	320	332	79
25°	208	217	233	258	281	95
35°	126	135	157	192	225	78
45°	46	56	88	130	162	39
55°	23	24	37	69	91	21
65°	11	15	19	22	25	11
75°	5	10	10	9	9	6
85°	3	5	5	5	4	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	358.7	358.7	358.7	358.7	358.7
2.5°	354.0	359.3	356.1	356.1	356.6
5°	345.1	351.9	350.9	353.5	356.6
7.5°	332.6	339.9	342.0	348.3	353.5
10°	317.9	326.3	330.5	340.4	347.2
12.5°	301.7	311.1	317.9	330.5	340.4
15°	283.8	293.8	303.2	319.5	331.5
17.5°	265.5	275.5	287.5	306.4	320.5
20°	247.2	257.1	270.8	290.7	307.9
22.5°	227.3	237.2	251.9	274.4	295.4
25°	207.9	217.3	233.0	258.2	280.7
27.5°	187.5	196.9	214.2	241.4	266.6
30°	167.1	176.5	195.3	224.7	252.4
32.5°	146.6	155.5	176.0	208.4	238.3
35°	125.7	134.6	156.6	192.2	224.7
37.5°	104.2	113.1	138.8	177.5	211.1
40°	83.8	93.7	119.4	162.9	196.4
42.5°	63.9	74.4	103.7	147.2	179.6
45°	46.1	56.0	88.5	130.4	162.3
47.5°	35.1	40.3	74.9	113.6	145.6
50°	30.9	31.4	61.3	98.5	127.8
52.5°	26.7	27.2	47.7	83.8	108.9
55°	23.0	23.6	37.2	68.6	90.6
57.5°	19.4	20.4	30.4	54.5	72.8
60°	16.2	18.3	26.7	41.4	55.5
62.5°	13.1	16.8	23.0	30.4	39.8
65°	11.0	15.2	19.4	21.5	25.1
67.5°	8.9	14.1	16.2	15.2	15.2
70°	7.3	12.6	13.6	12.6	12.6
72.5°	6.3	12.0	11.5	10.5	10.5
75°	5.2	10.5	10.0	8.9	8.9
77.5°	4.7	8.9	8.4	7.9	7.3
80°	3.7	7.3	7.3	6.8	5.8
82.5°	3.1	6.3	6.3	5.8	4.7
85°	2.6	5.2	5.2	4.7	3.7
87.5°	2.1	4.7	4.7	4.2	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	4.98	6.29	5.34	6.61	6.92	12.21	13.53	12.57	13.84	14.15
	3H	6.37	7.54	6.75	7.87	8.24	12.44	13.61	12.82	13.94	14.31
	4H	6.93	8.02	7.34	8.38	8.76	12.55	13.64	12.95	13.99	14.37
	6H	7.40	8.40	7.81	8.77	9.16	12.66	13.66	13.07	14.03	14.42
	8H	7.58	8.53	8.01	8.92	9.33	12.71	13.66	13.14	14.05	14.45
	12H	7.77	8.68	8.20	9.06	9.49	12.76	13.67	13.19	14.05	14.48
4H	2H	6.05	7.14	6.46	7.49	7.88	12.17	13.26	12.57	13.61	13.99
	3H	7.74	8.63	8.15	9.04	9.44	12.54	13.43	12.95	13.83	14.24
	4H	8.58	9.37	9.01	9.79	10.24	12.72	13.52	13.16	13.94	14.38
	6H	9.23	9.92	9.70	10.37	10.84	12.94	13.64	13.41	14.08	14.55
	8H	9.49	10.13	9.96	10.58	11.05	13.05	13.69	13.51	14.14	14.61
	12H	9.74	10.31	10.23	10.79	11.27	13.16	13.73	13.65	14.22	14.69
8H	4H	9.01	9.66	9.48	10.11	10.58	12.77	13.41	13.24	13.86	14.33
	6H	9.96	10.49	10.46	10.99	11.47	13.10	13.63	13.60	14.13	14.61
	8H	10.43	10.90	10.95	11.42	11.91	13.29	13.77	13.81	14.28	14.77
	12H	10.90	11.32	11.41	11.82	12.39	13.52	13.95	14.04	14.44	15.01
12H	4H	9.07	9.64	9.56	10.13	10.60	12.76	13.33	13.25	13.81	14.29
	6H	10.11	10.59	10.63	11.10	11.59	13.13	13.60	13.65	14.12	14.61
	8H	10.70	11.12	11.22	11.62	12.19	13.39	13.81	13.90	14.30	14.88