

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: P1059299

Luminaire Tested: S123RDRP-S560D930-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059299  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67 )  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S560D930-X4F0-XX-UDD-WVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

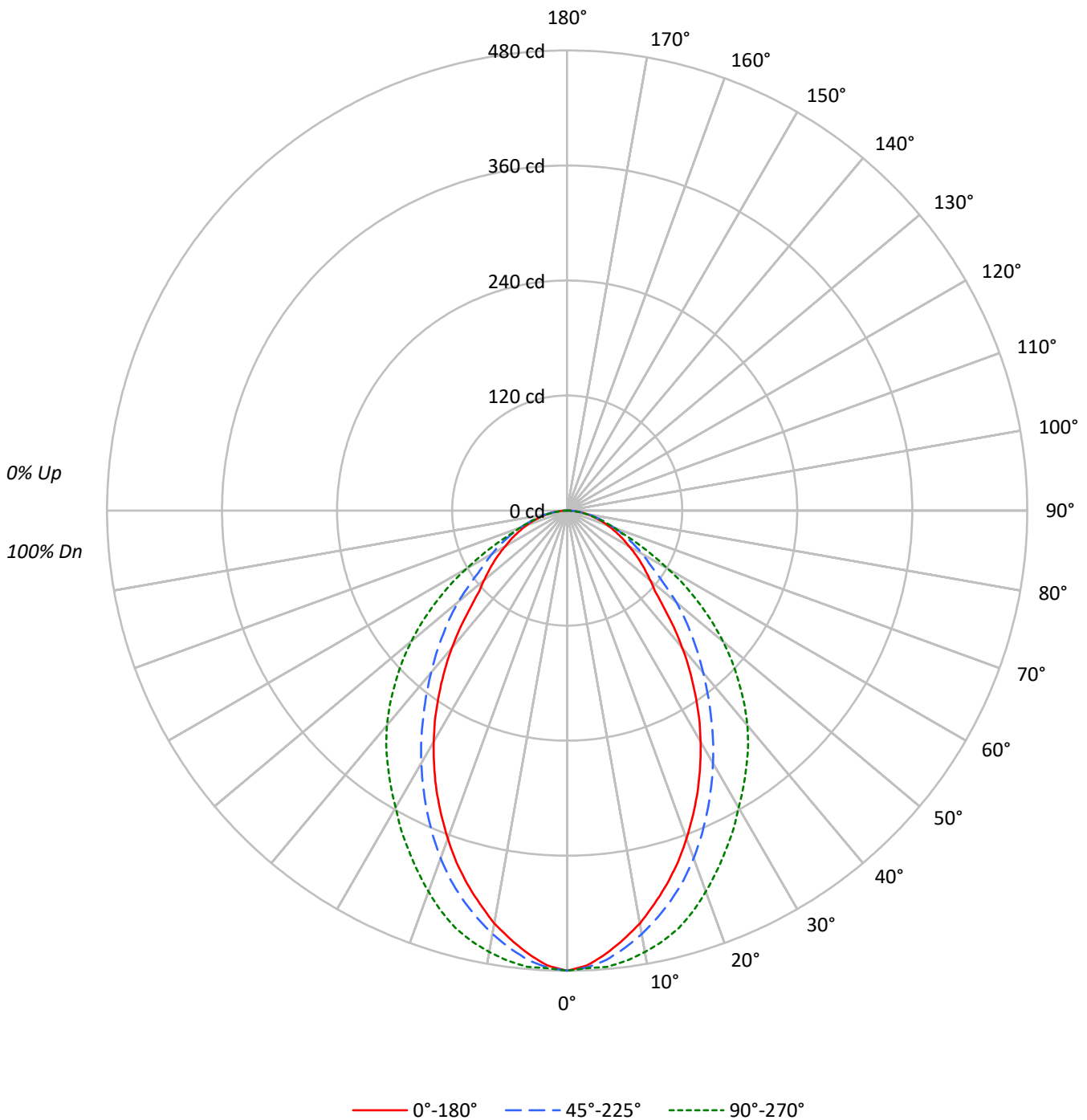
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 866.9 lumens  
Efficiency: N/A  
Efficacy: 44.2 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.6  
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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31

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

	0°	45°	90°
0°	5635	5635	5635
5°	5472	5545	5631
10°	5213	5347	5575
15°	4898	5109	5479
20°	4549	4823	5287
25°	4177	4483	5066
30°	3776	4127	4851
35°	3331	3750	4670
40°	2863	3382	4485
45°	2355	3046	4205
50°	2066	2713	3875
55°	1912	2315	3433
60°	1757	2128	2842
65°	1642	1953	2237
70°	1545	1778	1778
75°	1456	1633	1533
80°	1373	1481	1292
85°	1293	1442	984

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4205 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.4	5.1
10°-20°	119.0	13.7
20°-30°	161.3	18.6
30°-40°	168.6	19.5
40°-50°	146.3	16.9
50°-60°	108.8	12.6
60°-70°	69.8	8.1
70°-80°	37.4	4.3
80°-90°	11.3	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°	324.7	37.4
0°-40°	493.3	56.9
0°-60°	748.4	86.3
0°-90°	866.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	866.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	480	480	480	480	480	
5°	464	472	470	474	478	43
15°	403	412	420	437	451	113
25°	322	332	346	369	391	148
35°	232	244	262	295	326	145
45°	142	152	183	223	253	112
55°	93	96	113	145	168	84
65°	59	64	70	75	80	59
75°	32	37	36	34	34	34
85°	10	12	11	9	7	11
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	479.9	479.9	479.9	479.9	479.9
2.5°	474.9	481.6	477.1	477.1	477.7
5°	464.2	472.1	470.4	473.7	477.7
7.5°	451.2	459.7	460.2	468.1	473.7
10°	437.2	445.6	448.4	459.7	467.6
12.5°	420.3	429.9	434.9	449.0	460.2
15°	402.9	412.4	420.3	437.2	450.7
17.5°	384.3	393.9	404.0	423.1	437.7
20°	364.0	374.2	386.0	405.1	423.1
22.5°	343.2	353.9	366.3	387.1	407.4
25°	322.4	332.5	346.0	369.1	391.0
27.5°	300.5	311.1	325.2	350.5	375.3
30°	278.5	289.2	304.4	331.4	357.8
32.5°	256.0	266.7	283.0	313.4	342.1
35°	232.4	243.6	261.6	294.8	325.8
37.5°	209.9	220.6	240.8	277.4	310.0
40°	186.8	198.1	220.6	259.9	292.6
42.5°	164.3	175.5	202.0	241.4	273.4
45°	141.8	152.5	183.4	222.8	253.2
47.5°	124.3	132.2	166.0	203.1	233.5
50°	113.1	115.9	148.5	184.0	212.1
52.5°	103.0	105.2	129.4	164.9	190.2
55°	93.4	95.6	113.1	145.2	167.7
57.5°	83.8	86.6	100.7	124.9	145.2
60°	74.8	78.2	90.6	106.9	121.0
62.5°	67.0	70.9	80.5	90.6	100.2
65°	59.1	64.1	70.3	74.8	80.5
67.5°	51.8	57.4	60.8	61.9	62.5
70°	45.0	50.6	51.8	51.8	51.8
72.5°	38.3	44.4	43.3	42.8	42.2
75°	32.1	37.1	36.0	34.3	33.8
77.5°	25.9	30.4	28.7	27.6	25.9
80°	20.3	23.6	21.9	20.8	19.1
82.5°	15.2	17.4	15.8	14.6	12.9
85°	9.6	11.8	10.7	9.0	7.3
87.5°	5.1	6.8	5.6	5.1	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	12.79	14.27	13.15	14.59	14.90	15.55	17.03	15.92	17.35	17.66
	3H	14.50	15.83	14.88	16.16	16.52	16.57	17.90	16.95	18.23	18.59
	4H	15.16	16.41	15.56	16.76	17.14	16.94	18.18	17.34	18.53	18.91
	6H	15.66	16.81	16.08	17.18	17.57	17.19	18.34	17.60	18.71	19.10
	8H	15.84	16.94	16.27	17.33	17.73	17.26	18.36	17.69	18.75	19.15
	12H	15.97	17.02	16.40	17.40	17.83	17.30	18.34	17.73	18.73	19.16
4H	2H	13.57	14.81	13.97	15.16	15.54	15.82	17.07	16.22	17.42	17.79
	3H	15.49	16.53	15.90	16.93	17.33	17.08	18.11	17.49	18.51	18.91
	4H	16.30	17.23	16.74	17.65	18.09	17.56	18.49	18.00	18.91	19.35
	6H	16.94	17.75	17.40	18.20	18.66	17.94	18.75	18.40	19.19	19.66
	8H	17.17	17.93	17.64	18.37	18.84	18.05	18.81	18.52	19.25	19.72
	12H	17.35	18.02	17.83	18.50	18.97	18.12	18.80	18.61	19.28	19.75
8H	4H	16.62	17.38	17.09	17.82	18.29	17.75	18.51	18.22	18.95	19.42
	6H	17.42	18.04	17.91	18.53	19.01	18.24	18.87	18.74	19.36	19.84
	8H	17.74	18.30	18.26	18.81	19.30	18.42	18.98	18.93	19.49	19.98
	12H	18.02	18.52	18.53	19.01	19.57	18.55	19.04	19.06	19.54	20.10
12H	4H	16.65	17.32	17.13	17.80	18.27	17.77	18.44	18.25	18.92	19.39
	6H	17.47	18.03	17.98	18.54	19.03	18.28	18.84	18.79	19.35	19.84
	8H	17.86	18.36	18.37	18.85	19.42	18.51	19.00	19.02	19.50	20.06