

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: P1059293

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059293  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S560D930-X4F0-XX-UDD-BVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

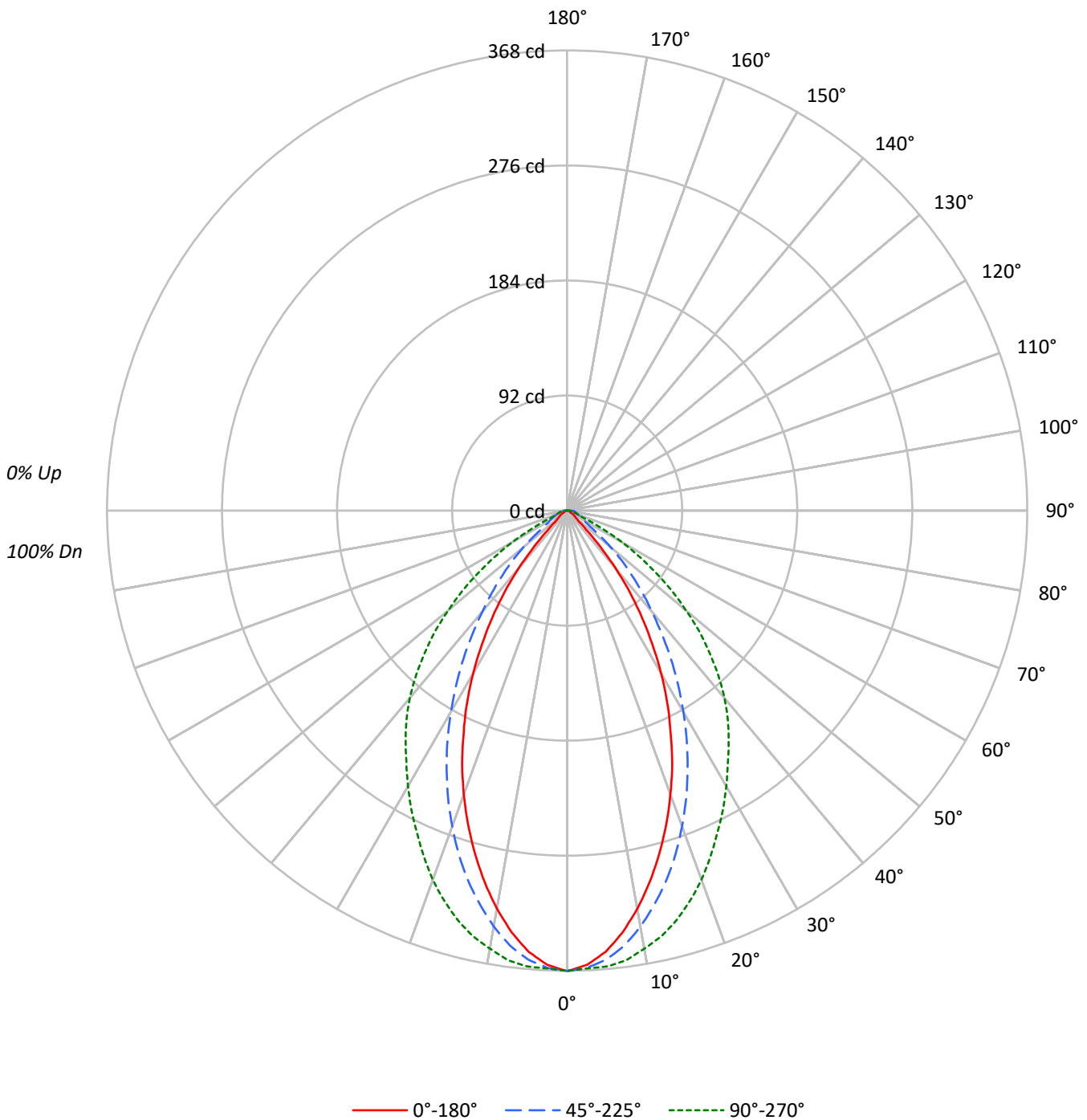
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 442.3 lumens  
Efficiency: N/A  
Efficacy: 22.6 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94  
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 (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

TEST NUMBER: P1059293

CATALOG NUMBER: S123RDRP-S560D930-X4F0-XX-UDD-BVL-S

### Luminous Intensity Polar Plot





TEST NUMBER: P1059293

CATALOG NUMBER: S123RDRP-S560D930-X4F0-XX-UDD-BVL-S

**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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40

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

	0°	45°	90°
0°	4324	4324	4324
5°	4174	4247	4314
10°	3854	4028	4242
15°	3456	3724	4120
20°	3018	3356	3926
25°	2538	2954	3683
30°	2038	2519	3451
35°	1494	2074	3228
40°	923	1614	3003
45°	355	1216	2674
50°	175	833	2263
55°	139	461	1775
60°	92	383	1191
65°	78	345	531
70°	79	309	309
75°	104	331	309
80°	156	419	345
85°	229	687	458

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2674 cd/sqm



TEST NUMBER: P1059293

CATALOG NUMBER: S123RDRP-S560D930-X4F0-XX-UDD-BVL-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.8	7.6
10°-20°	86.4	19.5
20°-30°	107.3	24.3
30°-40°	96.1	21.7
40°-50°	63.2	14.3
50°-60°	31.7	7.2
60°-70°	12.5	2.8
70°-80°	7.0	1.6
80°-90°	4.4	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°	227.5	51.4
0°-40°	323.6	73.2
0°-60°	418.4	94.6
0°-90°	442.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	442.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	368	368	368	368	368	
5°	354	360	360	363	366	33
15°	284	293	306	327	339	79
25°	196	208	228	260	284	90
35°	104	118	145	189	225	65
45°	21	36	73	123	161	20
55°	7	8	22	61	87	6
65°	3	8	12	16	19	3
75°	2	7	7	7	7	2
85°	2	5	5	5	3	2
90°	0	0	0	0	0	



TEST NUMBER: P1059293

CATALOG NUMBER: S123RDRP-S560D930-X4F0-XX-UDD-BVL-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	368.2	368.2	368.2	368.2	368.2
2.5°	363.7	368.8	366.0	366.0	366.5
5°	354.1	359.8	360.3	362.6	366.0
7.5°	340.1	347.4	350.8	357.5	362.6
10°	323.2	331.1	337.8	349.6	355.8
12.5°	304.6	312.5	322.6	338.9	348.5
15°	284.3	293.3	306.3	327.1	338.9
17.5°	263.5	272.5	288.3	311.9	327.1
20°	241.5	251.7	268.6	295.6	314.2
22.5°	219.6	230.8	248.9	278.1	299.5
25°	195.9	208.3	228.0	260.1	284.3
27.5°	173.4	186.4	207.2	242.1	269.7
30°	150.3	163.3	185.8	223.5	254.5
32.5°	126.7	141.3	165.0	206.1	239.3
35°	104.2	118.2	144.7	189.2	225.2
37.5°	82.2	96.3	123.9	172.8	211.1
40°	60.2	74.9	105.3	157.1	195.9
42.5°	39.4	54.6	89.0	141.3	179.0
45°	21.4	35.5	73.2	123.3	161.0
47.5°	11.8	19.1	59.1	106.4	143.6
50°	9.6	10.7	45.6	90.6	123.9
52.5°	7.9	9.0	32.7	75.4	105.8
55°	6.8	7.9	22.5	60.8	86.7
57.5°	5.6	6.8	18.0	46.7	68.1
60°	3.9	6.8	16.3	34.3	50.7
62.5°	3.4	6.8	14.1	23.6	33.8
65°	2.8	7.9	12.4	15.8	19.1
67.5°	2.3	7.9	10.7	10.1	10.1
70°	2.3	7.9	9.0	8.4	9.0
72.5°	2.3	8.4	8.4	7.9	7.9
75°	2.3	7.3	7.3	6.8	6.8
77.5°	2.3	6.8	6.8	6.2	6.2
80°	2.3	6.2	6.2	5.6	5.1
82.5°	2.3	5.6	5.6	5.1	4.5
85°	1.7	5.1	5.1	5.1	3.4
87.5°	1.7	4.5	5.1	4.5	2.8
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059293

CATALOG NUMBER: S123RDRP-S560D930-X4F0-XX-UDD-BVL-S

**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	0.00	0.00	0.00	0.00	0.00	11.63	12.89	11.99	13.20	13.51
	3H	0.11	1.22	0.49	1.55	1.92	11.71	12.82	12.09	13.15	13.52
	4H	1.27	2.31	1.68	2.66	3.04	11.77	12.81	12.18	13.16	13.54
	6H	2.34	3.29	2.75	3.66	4.05	11.87	12.82	12.29	13.19	13.59
	8H	2.88	3.78	3.31	4.17	4.58	11.93	12.83	12.36	13.22	13.63
	12H	3.36	4.22	3.80	4.61	5.04	12.00	12.86	12.43	13.24	13.68
4H	2H	0.82	1.86	1.23	2.21	2.59	11.49	12.52	11.89	12.88	13.26
	3H	3.28	4.13	3.69	4.53	4.94	11.66	12.51	12.08	12.91	13.32
	4H	4.62	5.38	5.06	5.80	6.24	11.79	12.55	12.23	12.97	13.41
	6H	5.77	6.42	6.23	6.87	7.34	12.01	12.66	12.47	13.11	13.58
	8H	6.28	6.89	6.75	7.34	7.81	12.13	12.75	12.60	13.19	13.66
	12H	6.74	7.28	7.23	7.76	8.24	12.30	12.84	12.78	13.32	13.79
8H	4H	5.54	6.15	6.01	6.60	7.07	11.80	12.41	12.27	12.85	13.33
	6H	7.15	7.65	7.65	8.14	8.63	12.13	12.63	12.63	13.12	13.61
	8H	7.97	8.42	8.49	8.94	9.43	12.36	12.81	12.88	13.32	13.82
	12H	8.75	9.15	9.27	9.65	10.22	12.69	13.08	13.20	13.58	14.15
12H	4H	5.71	6.25	6.19	6.73	7.20	11.79	12.32	12.27	12.81	13.28
	6H	7.46	7.91	7.98	8.43	8.92	12.16	12.61	12.68	13.12	13.62
	8H	8.46	8.86	8.98	9.36	9.93	12.47	12.87	12.98	13.36	13.94