

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: P1059122

Luminaire Tested: S123RDRP-S1165D927-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059122  
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-S1165D927-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: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

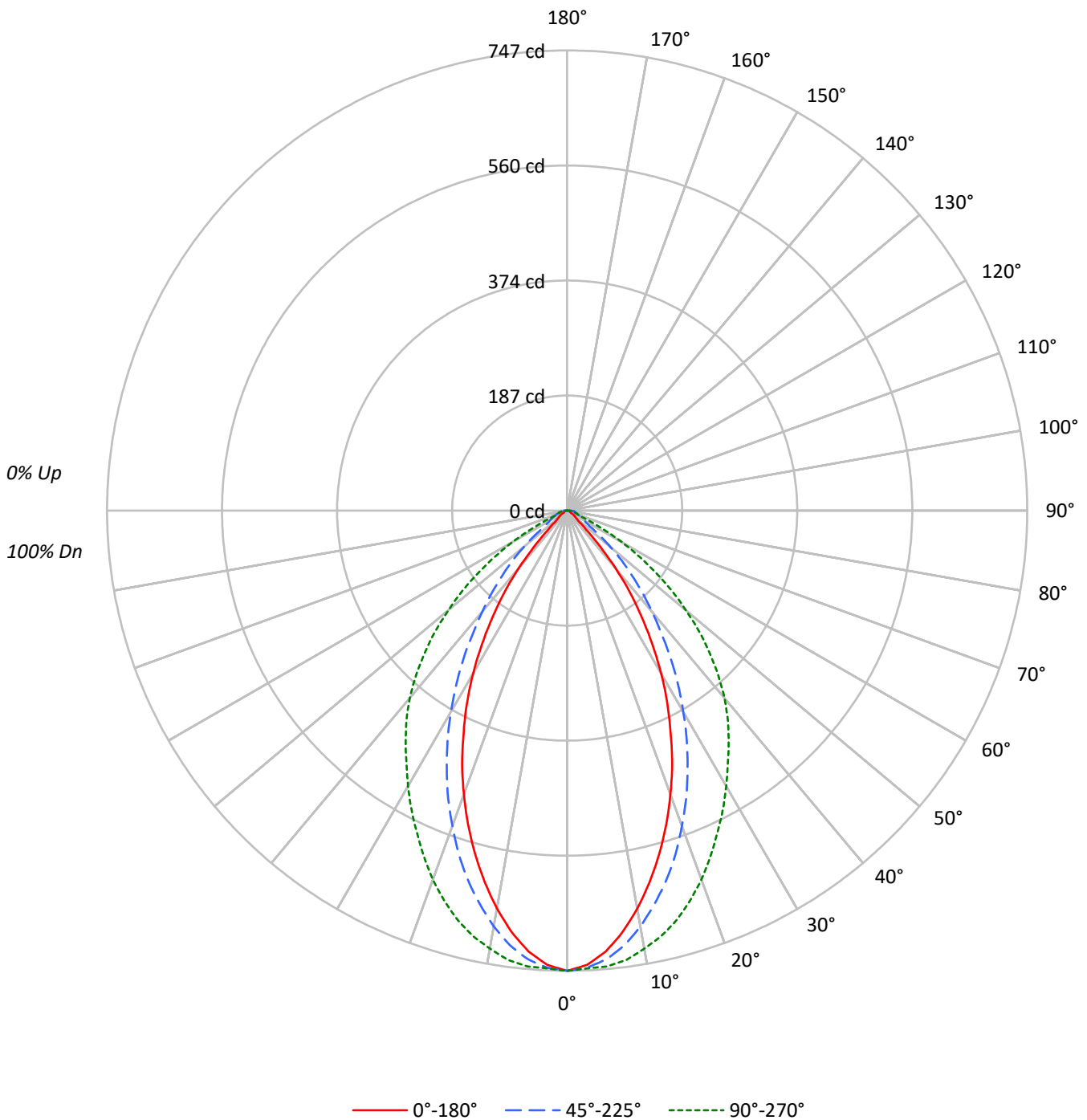
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 897.5 lumens  
Efficiency: N/A  
Efficacy: 21.5 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): 41.8  
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: P1059122

CATALOG NUMBER: S123RDRP-S1165D927-X4F0-XX-UDD-BVL-S

### Luminous Intensity Polar Plot





TEST NUMBER: P1059122

CATALOG NUMBER: S123RDRP-S1165D927-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	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°	8774	8774	8774
5°	8470	8619	8753
10°	7819	8174	8610
15°	7014	7555	8361
20°	6124	6810	7966
25°	5151	5995	7476
30°	4135	5112	7002
35°	3030	4209	6551
40°	1873	3274	6095
45°	721	2466	5427
50°	354	1690	4593
55°	280	936	3601
60°	188	777	2414
65°	158	697	1078
70°	158	628	628
75°	209	676	622
80°	311	852	697
85°	458	1388	930

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5427 cd/sqm



TEST NUMBER: P1059122

CATALOG NUMBER: S123RDRP-S1165D927-X4F0-XX-UDD-BVL-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.5	7.6
10°-20°	175.4	19.5
20°-30°	217.7	24.3
30°-40°	195.0	21.7
40°-50°	128.2	14.3
50°-60°	64.2	7.2
60°-70°	25.4	2.8
70°-80°	14.2	1.6
80°-90°	8.9	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°	461.6	51.4
0°-40°	656.6	73.2
0°-60°	849.0	94.6
0°-90°	897.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	897.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	747	747	747	747	747	
5°	719	730	731	736	743	67
15°	577	595	622	664	688	161
25°	398	423	463	528	577	182
35°	211	240	294	384	457	131
45°	43	72	148	250	327	41
55°	14	16	46	123	176	12
65°	6	16	25	32	39	6
75°	5	15	15	14	14	5
85°	3	10	10	10	7	4
90°	0	0	0	0	0	



TEST NUMBER: P1059122

CATALOG NUMBER: S123RDRP-S1165D927-X4F0-XX-UDD-BVL-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	747.2	747.2	747.2	747.2	747.2
2.5°	738.1	748.3	742.6	742.6	743.8
5°	718.6	730.1	731.2	735.8	742.6
7.5°	690.1	704.9	711.8	725.5	735.8
10°	655.8	671.8	685.5	709.5	722.1
12.5°	618.1	634.1	654.7	687.8	707.2
15°	577.0	595.2	621.5	663.8	687.8
17.5°	534.7	553.0	585.0	632.9	663.8
20°	490.1	510.7	545.0	599.8	637.5
22.5°	445.6	468.4	505.0	564.4	607.8
25°	397.6	422.7	462.7	527.8	577.0
27.5°	351.9	378.2	420.4	491.3	547.3
30°	305.0	331.3	377.0	453.6	516.4
32.5°	257.1	286.8	334.8	418.2	485.6
35°	211.4	239.9	293.6	383.9	457.0
37.5°	166.8	195.4	251.4	350.7	428.4
40°	122.2	152.0	213.6	318.8	397.6
42.5°	80.0	110.8	180.5	286.8	363.3
45°	43.4	72.0	148.5	250.2	326.8
47.5°	24.0	38.8	120.0	215.9	291.3
50°	19.4	21.7	92.5	183.9	251.4
52.5°	16.0	18.3	66.3	153.1	214.8
55°	13.7	16.0	45.7	123.4	175.9
57.5°	11.4	13.7	36.6	94.8	138.2
60°	8.0	13.7	33.1	69.7	102.8
62.5°	6.9	13.7	28.6	48.0	68.6
65°	5.7	16.0	25.1	32.0	38.8
67.5°	4.6	16.0	21.7	20.6	20.6
70°	4.6	16.0	18.3	17.1	18.3
72.5°	4.6	17.1	17.1	16.0	16.0
75°	4.6	14.9	14.9	13.7	13.7
77.5°	4.6	13.7	13.7	12.6	12.6
80°	4.6	12.6	12.6	11.4	10.3
82.5°	4.6	11.4	11.4	10.3	9.1
85°	3.4	10.3	10.3	10.3	6.9
87.5°	3.4	9.1	10.3	9.1	5.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059122  
 CATALOG NUMBER: S123RDRP-S1165D927-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	1.25	0.36	1.57	1.88	14.09	15.35	14.46	15.66	15.97
	3H	2.53	3.64	2.91	3.97	4.34	14.17	15.28	14.55	15.61	15.98
	4H	3.70	4.74	4.11	5.09	5.47	14.23	15.27	14.64	15.62	16.00
	6H	4.76	5.71	5.17	6.08	6.47	14.33	15.28	14.75	15.65	16.05
	8H	5.30	6.20	5.73	6.59	7.00	14.39	15.29	14.82	15.68	16.09
	12H	5.78	6.64	6.21	7.02	7.45	14.46	15.32	14.89	15.70	16.13
4H	2H	3.26	4.29	3.66	4.64	5.03	13.95	14.99	14.35	15.34	15.72
	3H	5.72	6.57	6.14	6.98	7.38	14.12	14.97	14.54	15.38	15.78
	4H	7.08	7.83	7.51	8.25	8.70	14.25	15.01	14.69	15.43	15.87
	6H	8.21	8.87	8.68	9.31	9.78	14.47	15.12	14.93	15.57	16.04
	8H	8.72	9.33	9.19	9.78	10.25	14.59	15.20	15.06	15.65	16.12
	12H	9.18	9.72	9.66	10.20	10.68	14.75	15.29	15.24	15.78	16.25
8H	4H	7.99	8.60	8.46	9.05	9.52	14.26	14.87	14.73	15.31	15.79
	6H	9.60	10.10	10.10	10.59	11.08	14.59	15.09	15.09	15.58	16.07
	8H	10.42	10.87	10.94	11.39	11.88	14.81	15.27	15.34	15.78	16.27
	12H	11.20	11.60	11.71	12.09	12.67	15.14	15.54	15.66	16.04	16.61
12H	4H	8.16	8.70	8.65	9.18	9.66	14.24	14.78	14.73	15.27	15.74
	6H	9.91	10.36	10.43	10.88	11.37	14.62	15.07	15.14	15.58	16.08
	8H	10.92	11.32	11.43	11.81	12.38	14.93	15.33	15.44	15.82	16.39