

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: P1059152

Luminaire Tested: S123RDRP-S1165D940-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059152  
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: S123RDRP-S1165D940-X4F0-XX-UDD-SVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

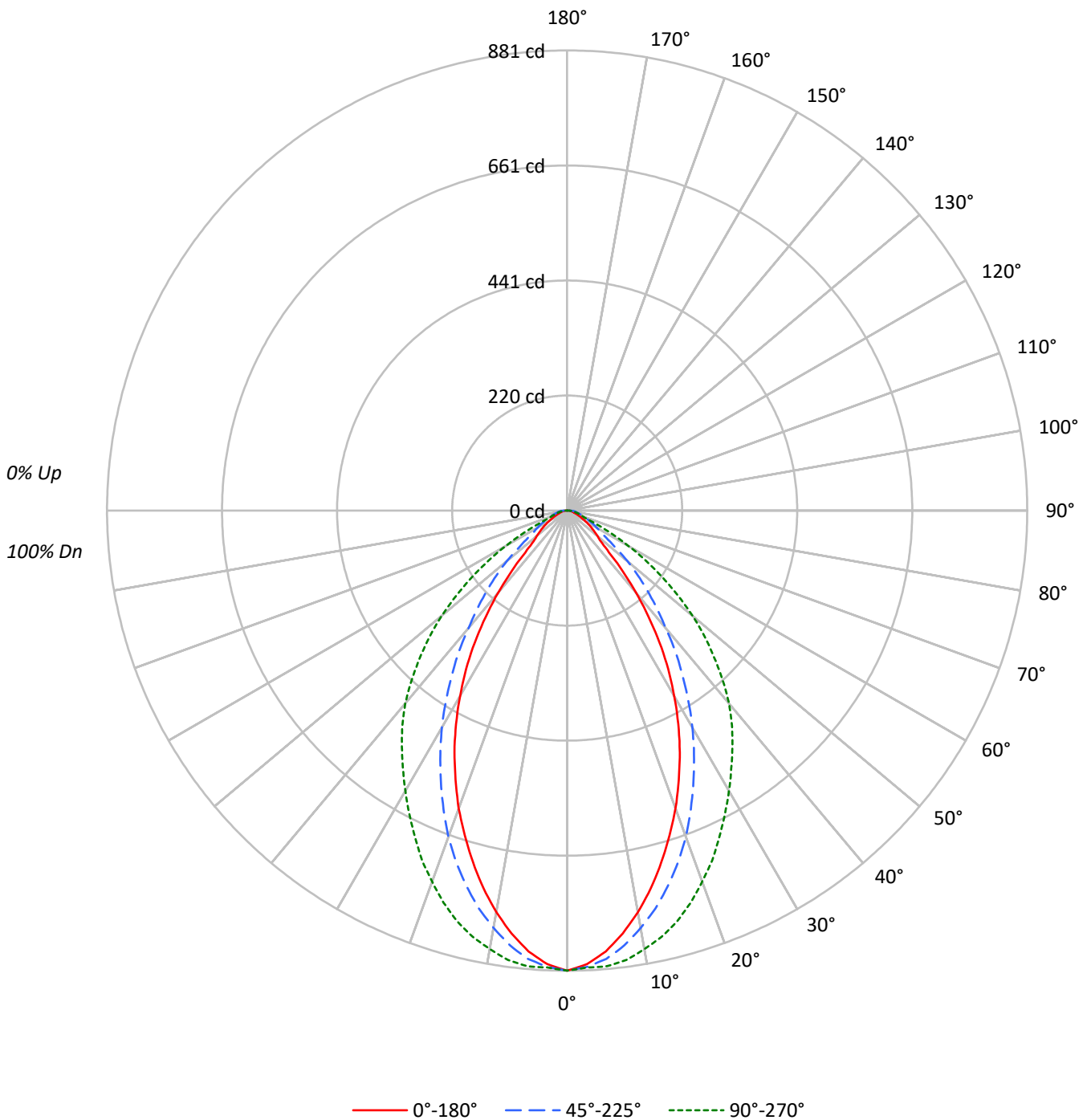
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1179.6 lumens  
Efficiency: N/A  
Efficacy: 28.2 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): 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: P1059152

CATALOG NUMBER: S123RDRP-S1165D940-X4F0-XX-UDD-SVL-S

### 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	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°	10343	10343	10343
5°	9987	10155	10321
10°	9306	9674	10165
15°	8472	9051	9894
20°	7584	8307	9447
25°	6614	7414	8930
30°	5562	6503	8403
35°	4424	5512	7907
40°	3153	4494	7391
45°	1878	3609	6619
50°	1387	2748	5731
55°	1159	1869	4553
60°	937	1541	3201
65°	750	1323	1714
70°	618	1147	1061
75°	585	1107	994
80°	609	1217	953
85°	862	1738	1213

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6619 cd/sqm

TEST NUMBER: P1059152

CATALOG NUMBER: S123RDRP-S1165D940-X4F0-XX-UDD-SVL-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.9	6.9
10°-20°	210.2	17.8
20°-30°	268.1	22.7
30°-40°	252.2	21.4
40°-50°	181.2	15.4
50°-60°	103.9	8.8
60°-70°	47.5	4.0
70°-80°	23.9	2.0
80°-90°	11.6	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°	559.2	47.4
0°-40°	811.4	68.8
0°-60°	1096.5	93.0
0°-90°	1179.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1179.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	881	881	881	881	881	
5°	847	864	862	868	876	79
15°	697	721	744	784	814	195
25°	510	534	572	634	689	233
35°	309	330	384	472	552	191
45°	113	138	217	320	399	95
55°	57	58	91	168	222	51
65°	27	37	48	53	62	27
75°	13	26	24	22	22	14
85°	6	13	13	12	9	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	880.8	880.8	880.8	880.8	880.8
2.5°	869.2	882.0	874.3	874.3	875.6
5°	847.3	864.0	861.5	867.9	875.6
7.5°	816.5	834.5	839.6	855.0	867.9
10°	780.5	801.0	811.3	835.8	852.5
12.5°	740.6	763.8	780.5	811.3	835.8
15°	696.9	721.3	744.5	784.3	813.9
17.5°	651.9	676.3	705.9	752.2	786.9
20°	606.9	631.3	664.8	713.6	756.0
22.5°	558.0	582.5	618.5	673.8	725.2
25°	510.5	533.6	572.2	633.9	689.2
27.5°	460.3	483.5	525.9	592.7	654.5
30°	410.2	433.3	479.6	551.6	619.7
32.5°	360.0	381.9	432.0	511.7	585.0
35°	308.6	330.4	384.5	471.9	551.6
37.5°	255.9	277.7	340.7	435.9	518.2
40°	205.7	230.2	293.2	399.9	482.2
42.5°	156.9	182.6	254.6	361.3	441.0
45°	113.1	137.6	217.3	320.2	398.6
47.5°	86.1	99.0	183.9	279.0	357.4
50°	75.9	77.1	150.4	241.7	313.7
52.5°	65.6	66.9	117.0	205.7	267.4
55°	56.6	57.9	91.3	168.4	222.4
57.5°	47.6	50.1	74.6	133.7	178.7
60°	39.9	45.0	65.6	101.6	136.3
62.5°	32.1	41.1	56.6	74.6	97.7
65°	27.0	37.3	47.6	52.7	61.7
67.5°	21.9	34.7	39.9	37.3	37.3
70°	18.0	30.9	33.4	30.9	30.9
72.5°	15.4	29.6	28.3	25.7	25.7
75°	12.9	25.7	24.4	21.9	21.9
77.5°	11.6	21.9	20.6	19.3	18.0
80°	9.0	18.0	18.0	16.7	14.1
82.5°	7.7	15.4	15.4	14.1	11.6
85°	6.4	12.9	12.9	11.6	9.0
87.5°	5.1	11.6	11.6	10.3	6.4
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	8.10	9.42	8.46	9.73	10.04	15.32	16.64	15.69	16.95	17.27
	3H	9.50	10.67	9.88	11.00	11.36	15.56	16.73	15.94	17.06	17.42
	4H	10.06	11.15	10.47	11.50	11.89	15.67	16.76	16.07	17.11	17.49
	6H	10.52	11.53	10.94	11.90	12.29	15.77	16.78	16.19	17.15	17.54
	8H	10.71	11.66	11.14	12.05	12.45	15.82	16.77	16.25	17.16	17.57
	12H	10.90	11.81	11.33	12.19	12.62	15.87	16.78	16.31	17.16	17.59
4H	2H	9.17	10.26	9.58	10.61	11.00	15.28	16.37	15.69	16.73	17.11
	3H	10.87	11.76	11.28	12.16	12.57	15.65	16.55	16.07	16.95	17.35
	4H	11.70	12.50	12.13	12.92	13.36	15.84	16.64	16.27	17.06	17.50
	6H	12.36	13.05	12.82	13.50	13.96	16.06	16.75	16.52	17.20	17.66
	8H	12.61	13.26	13.08	13.71	14.18	16.16	16.81	16.63	17.25	17.72
	12H	12.87	13.44	13.35	13.92	14.40	16.28	16.85	16.76	17.33	17.81
8H	4H	12.13	12.78	12.60	13.23	13.70	15.88	16.53	16.35	16.98	17.45
	6H	13.09	13.62	13.59	14.11	14.59	16.22	16.74	16.72	17.24	17.72
	8H	13.55	14.03	14.07	14.54	15.03	16.40	16.88	16.93	17.40	17.89
	12H	14.03	14.45	14.54	14.95	15.52	16.64	17.06	17.15	17.55	18.13
12H	4H	12.19	12.77	12.68	13.25	13.72	15.88	16.45	16.36	16.93	17.40
	6H	13.23	13.71	13.76	14.23	14.72	16.24	16.72	16.76	17.23	17.73
	8H	13.83	14.25	14.34	14.74	15.31	16.50	16.92	17.02	17.42	17.99