

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: P1059317

Luminaire Tested: S123RDRP-S560D940-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059317  
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-S560D940-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: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

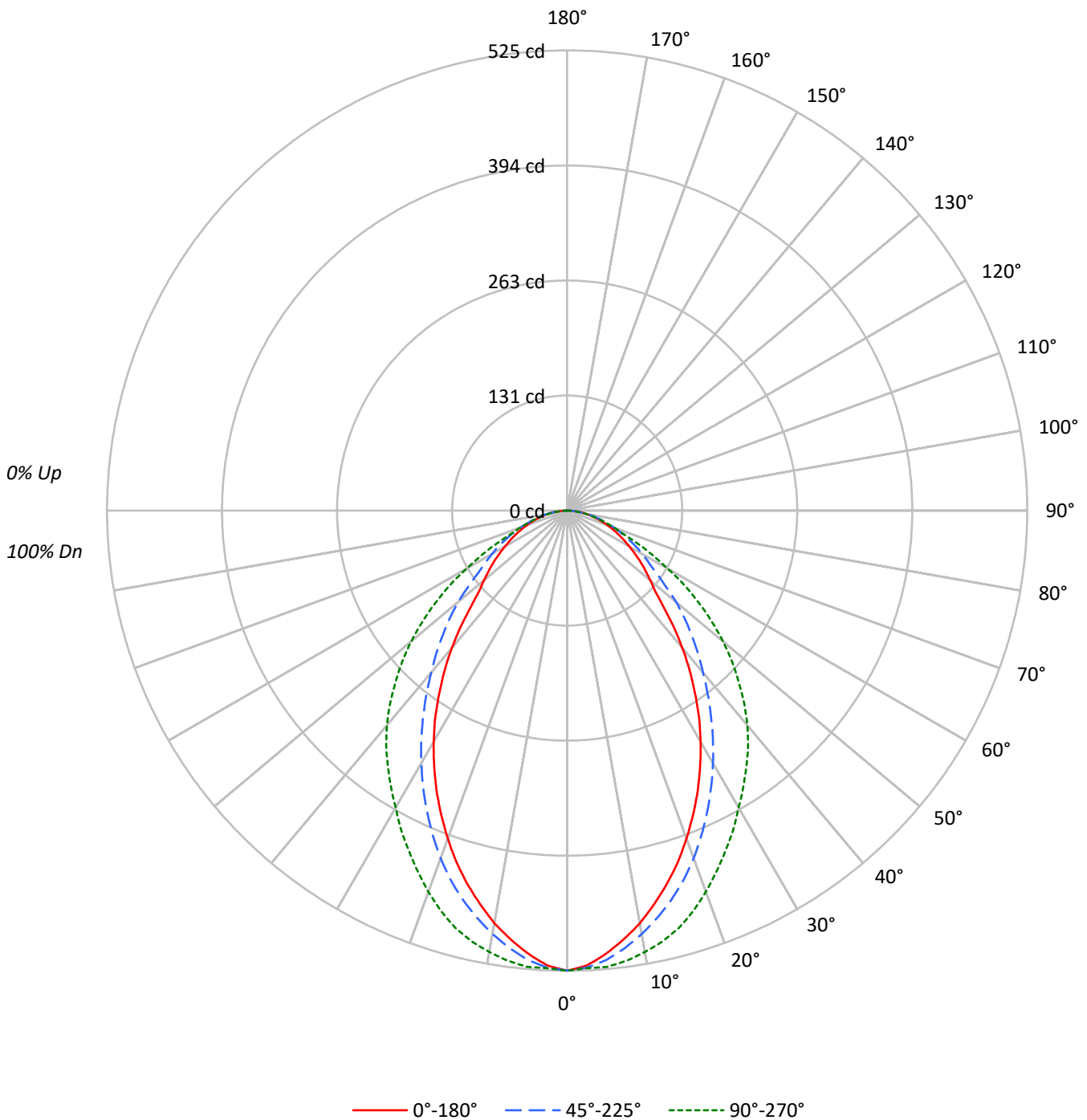
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 948.2 lumens  
Efficiency: N/A  
Efficacy: 48.4 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 (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: P1059317

CATALOG NUMBER: S123RDRP-S560D940-X4F0-XX-UDD-WVL-S

### Luminous Intensity Polar Plot





TEST NUMBER: P1059317

CATALOG NUMBER: S123RDRP-S560D940-X4F0-XX-UDD-WVL-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	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°	6164	6164	6164
5°	5984	6065	6159
10°	5701	5849	6098
15°	5356	5588	5992
20°	4975	5275	5783
25°	4568	4904	5541
30°	4130	4514	5307
35°	3644	4103	5108
40°	3132	3697	4905
45°	2576	3331	4598
50°	2260	2969	4238
55°	2092	2532	3755
60°	1921	2327	3107
65°	1795	2137	2445
70°	1689	1943	1943
75°	1592	1788	1674
80°	1501	1623	1413
85°	1415	1576	1078

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4598 cd/sqm



TEST NUMBER: P1059317

CATALOG NUMBER: S123RDRP-S560D940-X4F0-XX-UDD-WVL-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.5	5.1
10°-20°	130.1	13.7
20°-30°	176.4	18.6
30°-40°	184.5	19.5
40°-50°	160.0	16.9
50°-60°	119.0	12.6
60°-70°	76.4	8.1
70°-80°	41.0	4.3
80°-90°	12.4	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°	355.1	37.4
0°-40°	539.5	56.9
0°-60°	818.5	86.3
0°-90°	948.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	948.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	525	525	525	525	525	
5°	508	516	514	518	522	48
15°	441	451	460	478	493	123
25°	353	364	378	404	428	162
35°	254	266	286	322	356	159
45°	155	167	201	244	277	122
55°	102	105	124	159	183	91
65°	65	70	77	82	88	64
75°	35	41	39	38	37	37
85°	10	13	12	10	8	12
90°	0	0	0	0	0	



TEST NUMBER: P1059317

CATALOG NUMBER: S123RDRP-S560D940-X4F0-XX-UDD-WVL-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	524.9	524.9	524.9	524.9	524.9
2.5°	519.4	526.8	521.8	521.8	522.5
5°	507.7	516.3	514.5	518.1	522.5
7.5°	493.5	502.8	503.4	512.0	518.1
10°	478.1	487.4	490.5	502.8	511.4
12.5°	459.7	470.1	475.7	491.1	503.4
15°	440.6	451.1	459.7	478.1	492.9
17.5°	420.3	430.8	441.8	462.8	478.8
20°	398.1	409.2	422.1	443.1	462.8
22.5°	375.4	387.1	400.6	423.4	445.5
25°	352.6	363.7	378.5	403.7	427.7
27.5°	328.6	340.3	355.7	383.4	410.5
30°	304.6	316.3	332.9	362.5	391.4
32.5°	280.0	291.7	309.5	342.8	374.1
35°	254.2	266.5	286.2	322.5	356.3
37.5°	229.5	241.2	263.4	303.4	339.1
40°	204.3	216.6	241.2	284.3	320.0
42.5°	179.7	192.0	220.9	264.0	299.1
45°	155.1	166.8	200.6	243.7	276.9
47.5°	136.0	144.6	181.5	222.2	255.4
50°	123.7	126.8	162.5	201.2	232.0
52.5°	112.6	115.1	141.5	180.3	208.0
55°	102.2	104.6	123.7	158.8	183.4
57.5°	91.7	94.8	110.2	136.6	158.8
60°	81.8	85.5	99.1	116.9	132.3
62.5°	73.2	77.5	88.0	99.1	109.5
65°	64.6	70.2	76.9	81.8	88.0
67.5°	56.6	62.8	66.5	67.7	68.3
70°	49.2	55.4	56.6	56.6	56.6
72.5°	41.8	48.6	47.4	46.8	46.2
75°	35.1	40.6	39.4	37.5	36.9
77.5°	28.3	33.2	31.4	30.2	28.3
80°	22.2	25.8	24.0	22.8	20.9
82.5°	16.6	19.1	17.2	16.0	14.2
85°	10.5	12.9	11.7	9.8	8.0
87.5°	5.5	7.4	6.2	5.5	3.1
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059317  
 CATALOG NUMBER: S123RDRP-S560D940-X4F0-XX-UDD-WVL-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	13.11	14.59	13.47	14.90	15.22	15.86	17.34	16.23	17.66	17.97
	3H	14.82	16.14	15.19	16.47	16.84	16.88	18.21	17.26	18.54	18.90
	4H	15.48	16.72	15.88	17.07	17.45	17.25	18.49	17.65	18.84	19.22
	6H	15.98	17.13	16.39	17.49	17.89	17.50	18.65	17.91	19.02	19.41
	8H	16.16	17.25	16.58	17.64	18.04	17.57	18.67	18.00	19.06	19.46
	12H	16.28	17.33	16.71	17.71	18.14	17.61	18.66	18.04	19.04	19.47
4H	2H	13.88	15.13	14.28	15.48	15.85	16.13	17.38	16.53	17.73	18.11
	3H	15.81	16.84	16.22	17.24	17.64	17.39	18.42	17.80	18.82	19.22
	4H	16.62	17.55	17.05	17.96	18.40	17.87	18.80	18.31	19.22	19.66
	6H	17.26	18.06	17.71	18.51	18.97	18.25	19.06	18.71	19.50	19.97
	8H	17.48	18.24	17.95	18.68	19.15	18.37	19.12	18.83	19.57	20.03
	12H	17.66	18.33	18.14	18.81	19.28	18.44	19.11	18.92	19.59	20.06
8H	4H	16.94	17.69	17.40	18.14	18.60	18.06	18.82	18.53	19.26	19.73
	6H	17.73	18.35	18.23	18.84	19.32	18.55	19.18	19.05	19.67	20.15
	8H	18.06	18.62	18.57	19.13	19.62	18.73	19.29	19.24	19.80	20.29
	12H	18.33	18.83	18.84	19.32	19.89	18.86	19.36	19.37	19.85	20.42
12H	4H	16.96	17.63	17.44	18.11	18.58	18.08	18.75	18.56	19.23	19.70
	6H	17.78	18.34	18.30	18.85	19.34	18.59	19.15	19.10	19.66	20.15
	8H	18.18	18.67	18.69	19.16	19.73	18.82	19.31	19.33	19.81	20.37