

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: P1059072

Luminaire Tested: S123RDRP-S1000D940-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059072  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S1000D940-X4F0-XX-UDD-SVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

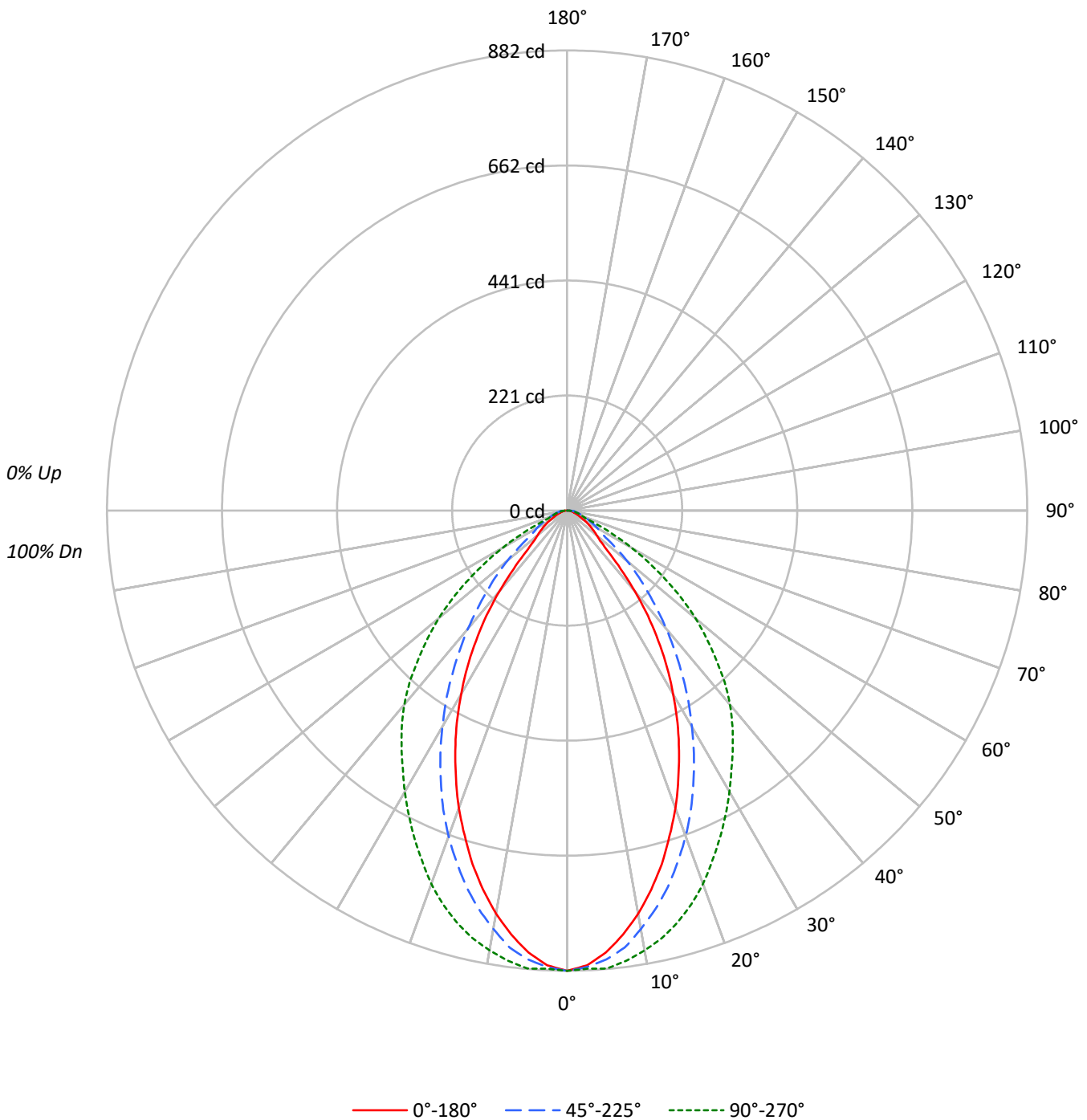
Lumens per Lamp: N/A  
Luminaire Lumens: 1184.2 lumens  
Efficiency: N/A  
Efficacy: 33.8 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
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: P1059072

CATALOG NUMBER: S123RDRP-S1000D940-X4F0-XX-UDD-SVL-W

### Luminous Intensity Polar Plot



TEST NUMBER: P1059072

CATALOG NUMBER: S123RDRP-S1000D940-X4F0-XX-UDD-SVL-W

**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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89					89			
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79					79			
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71					71			
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64					64			
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58					58			
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52					52			
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48					48			
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44					44			
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40					40			
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37					37			

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

	0°	45°	90°
0°	10359	10359	10359
5°	10024	10178	10386
10°	9355	9708	10205
15°	8525	9073	9938
20°	7586	8299	9517
25°	6574	7425	8974
30°	5513	6478	8439
35°	4366	5513	7933
40°	3090	4536	7442
45°	1820	3585	6697
50°	1361	2722	5866
55°	1144	1840	4711
60°	928	1569	3347
65°	731	1339	1767
70°	639	1167	1092
75°	599	1093	1043
80°	595	1183	1035
85°	741	1778	1334

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6697 cd/sqm



TEST NUMBER: P1059072

CATALOG NUMBER: S123RDRP-S1000D940-X4F0-XX-UDD-SVL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.2	6.9
10°-20°	211.0	17.8
20°-30°	268.7	22.7
30°-40°	252.7	21.3
40°-50°	182.0	15.4
50°-60°	105.1	8.9
60°-70°	48.1	4.1
70°-80°	24.0	2.0
80°-90°	11.4	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°	560.9	47.4
0°-40°	813.6	68.7
0°-60°	1100.8	93.0
0°-90°	1184.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1184.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	882	882	882	882	882	
5°	850	865	864	872	881	79
15°	701	727	746	788	818	195
25°	507	534	573	637	693	232
35°	305	331	385	473	553	189
45°	110	137	216	324	403	93
55°	56	58	90	171	230	50
65°	26	37	48	54	64	27
75°	13	25	24	23	23	14
85°	6	12	13	12	10	6
90°	0	0	0	0	0	



TEST NUMBER: P1059072

CATALOG NUMBER: S123RDRP-S1000D940-X4F0-XX-UDD-SVL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	882.2	882.2	882.2	882.2	882.2
2.5°	872.3	883.3	875.6	876.7	878.9
5°	850.4	864.6	863.5	872.3	881.1
7.5°	819.7	836.1	844.9	858.1	870.1
10°	784.6	803.3	814.2	838.3	855.9
12.5°	744.1	768.2	782.4	814.2	839.4
15°	701.3	726.6	746.3	787.9	817.5
17.5°	653.1	680.5	705.7	755.0	791.2
20°	607.1	633.4	664.1	717.8	761.6
22.5°	556.7	585.2	620.3	677.2	726.6
25°	507.4	533.7	573.1	636.7	692.6
27.5°	458.1	484.4	526.0	596.1	657.5
30°	406.6	434.0	477.8	555.6	622.4
32.5°	356.2	382.5	431.8	516.1	586.3
35°	304.6	330.9	384.6	473.4	553.4
37.5°	254.2	281.6	338.6	438.3	520.5
40°	201.6	231.2	295.9	402.2	485.5
42.5°	152.3	184.1	253.1	364.9	447.1
45°	109.6	137.0	215.9	324.4	403.3
47.5°	85.5	99.7	181.9	282.7	362.7
50°	74.5	76.7	149.0	244.4	321.1
52.5°	64.7	66.8	117.3	208.2	277.3
55°	55.9	58.1	89.9	171.0	230.1
57.5°	47.1	50.4	74.5	135.9	185.2
60°	39.5	43.8	66.8	104.1	142.5
62.5°	31.8	39.5	57.0	76.7	101.9
65°	26.3	37.3	48.2	53.7	63.6
67.5°	21.9	34.0	40.5	38.4	37.3
70°	18.6	30.7	34.0	30.7	31.8
72.5°	15.3	28.5	28.5	26.3	26.3
75°	13.2	25.2	24.1	23.0	23.0
77.5°	11.0	21.9	20.8	19.7	18.6
80°	8.8	17.5	17.5	16.4	15.3
82.5°	7.7	14.2	14.2	14.2	12.1
85°	5.5	12.1	13.2	12.1	9.9
87.5°	4.4	11.0	11.0	9.9	6.6
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059072  
 CATALOG NUMBER: S123RDRP-S1000D940-X4F0-XX-UDD-SVL-W

**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	8.09	9.41	8.46	9.72	10.04	15.46	16.78	15.82	17.09	17.40
	3H	9.48	10.65	9.86	10.98	11.35	15.69	16.86	16.07	17.19	17.55
	4H	10.03	11.13	10.44	11.48	11.86	15.80	16.89	16.20	17.24	17.63
	6H	10.47	11.47	10.89	11.84	12.24	15.92	16.92	16.33	17.29	17.68
	8H	10.65	11.60	11.08	11.99	12.39	15.97	16.92	16.40	17.31	17.71
	12H	10.80	11.71	11.24	12.10	12.53	16.03	16.94	16.46	17.32	17.75
4H	2H	9.19	10.28	9.59	10.63	11.02	15.41	16.50	15.82	16.86	17.24
	3H	10.85	11.75	11.27	12.15	12.56	15.78	16.67	16.19	17.07	17.48
	4H	11.67	12.47	12.10	12.88	13.33	15.97	16.77	16.41	17.19	17.63
	6H	12.30	12.99	12.76	13.44	13.91	16.20	16.89	16.66	17.34	17.80
	8H	12.54	13.18	13.01	13.63	14.10	16.30	16.95	16.77	17.39	17.87
	12H	12.75	13.32	13.24	13.81	14.28	16.43	17.00	16.92	17.49	17.96
8H	4H	12.11	12.75	12.58	13.20	13.67	16.01	16.66	16.48	17.10	17.57
	6H	13.02	13.55	13.52	14.04	14.52	16.34	16.87	16.84	17.36	17.84
	8H	13.43	13.91	13.96	14.43	14.92	16.52	17.00	17.05	17.52	18.01
	12H	13.85	14.28	14.37	14.77	15.34	16.78	17.20	17.29	17.69	18.26
12H	4H	12.16	12.74	12.65	13.22	13.69	16.00	16.57	16.48	17.05	17.53
	6H	13.15	13.63	13.67	14.14	14.63	16.35	16.83	16.87	17.34	17.84
	8H	13.69	14.11	14.20	14.61	15.18	16.61	17.03	17.12	17.52	18.10