

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059473

Luminaire Tested: S123RDR-H1000D940-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059473
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: S123RDR-H1000D940-X4F0-XX-UDD-BVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

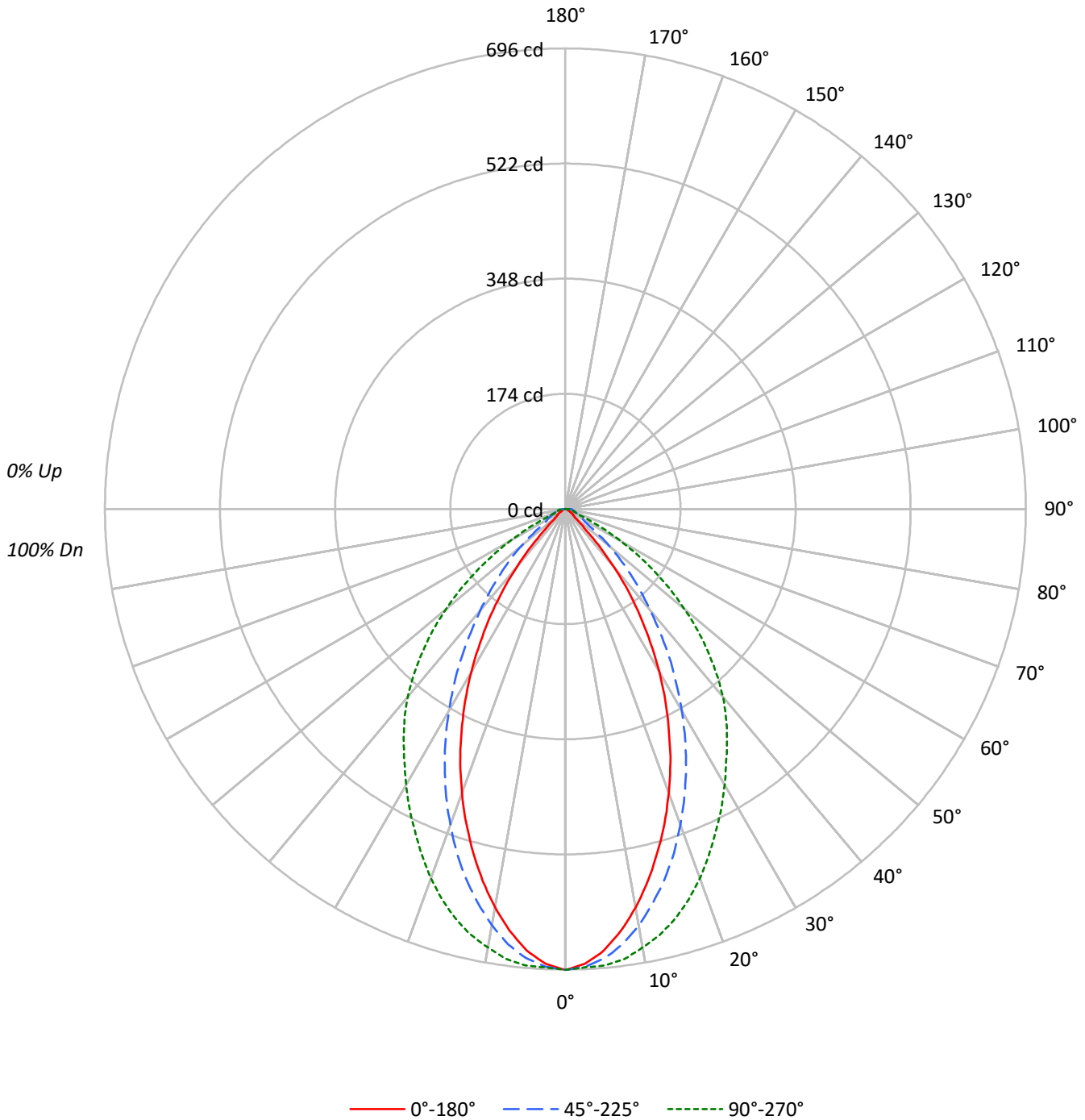
Lumens per Lamp: N/A
Luminaire Lumens: 836.6 lumens
Efficiency: N/A
Efficacy: 26.8 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
Input Voltage (V): 120
Input Current (Ain): 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: P1059473

CATALOG NUMBER: S123RDR-H1000D940-X4F0-XX-UDD-BVL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1059473

CATALOG NUMBER: S123RDR-H1000D940-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	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°	8179	8179	8179
5°	7895	8034	8159
10°	7289	7619	8025
15°	6538	7042	7794
20°	5709	6348	7425
25°	4802	5588	6968
30°	3855	4765	6526
35°	2824	3923	6107
40°	1746	3052	5681
45°	673	2298	5058
50°	331	1577	4280
55°	262	872	3357
60°	176	726	2250
65°	147	650	1006
70°	148	584	584
75°	195	626	581
80°	291	791	649
85°	431	1293	862

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5058 cd/sqm



TEST NUMBER: P1059473

CATALOG NUMBER: S123RDR-H1000D940-X4F0-XX-UDD-BVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.9	7.6
10°-20°	163.5	19.5
20°-30°	202.9	24.3
30°-40°	181.8	21.7
40°-50°	119.5	14.3
50°-60°	59.9	7.2
60°-70°	23.6	2.8
70°-80°	13.2	1.6
80°-90°	8.3	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°	430.2	51.4
0°-40°	612.0	73.2
0°-60°	791.4	94.6
0°-90°	836.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	836.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	696	696	696	696	696	
5°	670	680	682	686	692	62
15°	538	555	579	619	641	150
25°	371	394	431	492	538	169
35°	197	224	274	358	426	122
45°	40	67	138	233	305	38
55°	13	15	43	115	164	11
65°	5	15	23	30	36	5
75°	4	14	14	13	13	5
85°	3	10	10	10	6	4
90°	0	0	0	0	0	



TEST NUMBER: P1059473

CATALOG NUMBER: S123RDR-H1000D940-X4F0-XX-UDD-BVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	696.5	696.5	696.5	696.5	696.5
2.5°	687.9	697.5	692.2	692.2	693.3
5°	669.8	680.5	681.6	685.8	692.2
7.5°	643.2	657.1	663.4	676.2	685.8
10°	611.3	626.2	639.0	661.3	673.0
12.5°	576.1	591.0	610.2	641.1	659.2
15°	537.8	554.8	579.3	618.7	641.1
17.5°	498.4	515.4	545.2	590.0	618.7
20°	456.9	476.0	508.0	559.1	594.2
22.5°	415.3	436.6	470.7	526.1	566.5
25°	370.6	394.0	431.3	492.0	537.8
27.5°	328.0	352.5	391.9	457.9	510.1
30°	284.3	308.8	351.4	422.8	481.3
32.5°	239.6	267.3	312.0	389.8	452.6
35°	197.0	223.6	273.7	357.8	426.0
37.5°	155.5	182.1	234.3	326.9	399.3
40°	113.9	141.6	199.1	297.1	370.6
42.5°	74.5	103.3	168.3	267.3	338.6
45°	40.5	67.1	138.4	233.2	304.6
47.5°	22.4	36.2	111.8	201.3	271.6
50°	18.1	20.2	86.3	171.5	234.3
52.5°	14.9	17.0	61.8	142.7	200.2
55°	12.8	14.9	42.6	115.0	164.0
57.5°	10.6	12.8	34.1	88.4	128.9
60°	7.5	12.8	30.9	65.0	95.8
62.5°	6.4	12.8	26.6	44.7	63.9
65°	5.3	14.9	23.4	29.8	36.2
67.5°	4.3	14.9	20.2	19.2	19.2
70°	4.3	14.9	17.0	16.0	17.0
72.5°	4.3	16.0	16.0	14.9	14.9
75°	4.3	13.8	13.8	12.8	12.8
77.5°	4.3	12.8	12.8	11.7	11.7
80°	4.3	11.7	11.7	10.6	9.6
82.5°	4.3	10.6	10.6	9.6	8.5
85°	3.2	9.6	9.6	9.6	6.4
87.5°	3.2	8.5	9.6	8.5	5.3
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059473
 CATALOG NUMBER: S123RDR-H1000D940-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	1.02	0.13	1.33	1.65	13.85	15.11	14.21	15.42	15.73
	3H	2.29	3.40	2.67	3.73	4.10	13.93	15.04	14.31	15.37	15.74
	4H	3.46	4.50	3.86	4.85	5.23	13.99	15.03	14.40	15.38	15.76
	6H	4.52	5.47	4.93	5.84	6.23	14.09	15.04	14.50	15.41	15.81
	8H	5.06	5.96	5.49	6.35	6.76	14.15	15.05	14.58	15.44	15.85
	12H	5.54	6.40	5.97	6.78	7.21	14.22	15.08	14.65	15.46	15.89
4H	2H	3.02	4.05	3.42	4.40	4.79	13.71	14.74	14.11	15.10	15.48
	3H	5.48	6.33	5.90	6.73	7.14	13.88	14.73	14.30	15.13	15.54
	4H	6.83	7.58	7.26	8.00	8.45	14.01	14.77	14.45	15.19	15.63
	6H	7.96	8.62	8.43	9.06	9.53	14.23	14.88	14.69	15.33	15.79
	8H	8.47	9.09	8.94	9.53	10.00	14.35	14.96	14.82	15.41	15.88
	12H	8.93	9.47	9.42	9.95	10.43	14.51	15.05	15.00	15.53	16.01
8H	4H	7.74	8.35	8.21	8.80	9.27	14.01	14.63	14.48	15.07	15.54
	6H	9.34	9.84	9.85	10.34	10.82	14.34	14.84	14.85	15.34	15.82
	8H	10.17	10.62	10.69	11.14	11.63	14.57	15.02	15.09	15.54	16.03
	12H	10.95	11.35	11.46	11.84	12.42	14.90	15.30	15.41	15.79	16.36
12H	4H	7.91	8.45	8.40	8.93	9.41	14.00	14.54	14.49	15.03	15.50
	6H	9.66	10.11	10.18	10.62	11.12	14.37	14.82	14.90	15.34	15.83
	8H	10.66	11.06	11.18	11.56	12.13	14.68	15.08	15.20	15.58	16.15