

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: P1059032

Luminaire Tested: S123RDRP-S1000D850-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059032
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-S1000D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

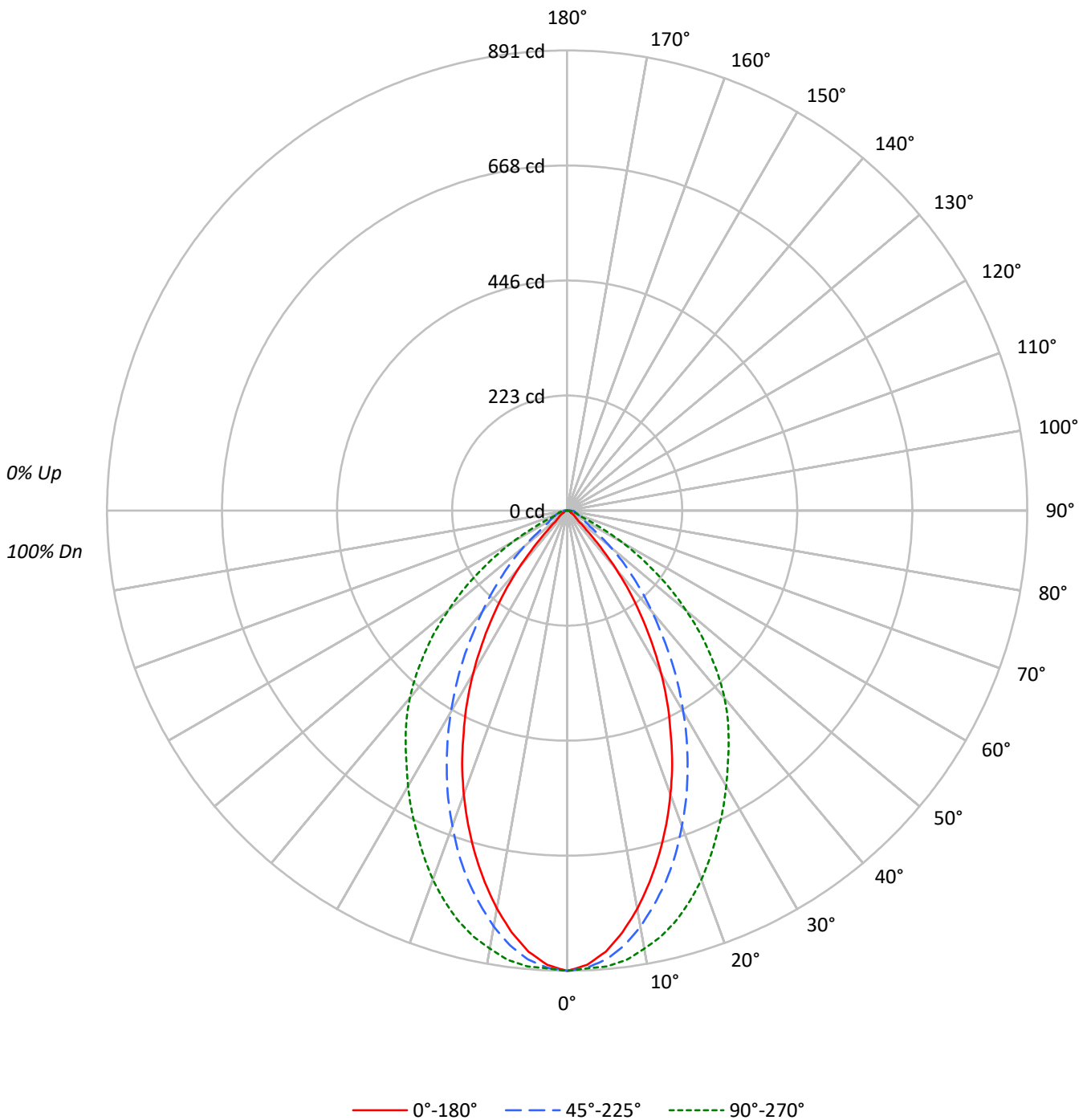
Lumens per Lamp: N/A
Luminaire Lumens: 1070.6 lumens
Efficiency: N/A
Efficacy: 30.6 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): 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: P1059032

CATALOG NUMBER: S123RDRP-S1000D850-X4F0-XX-UDD-BVL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1059032

CATALOG NUMBER: S123RDRP-S1000D850-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	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°	10466	10466	10466
5°	10104	10281	10441
10°	9328	9750	10270
15°	8366	9013	9973
20°	7306	8124	9503
25°	6145	7151	8917
30°	4934	6097	8352
35°	3614	5020	7814
40°	2235	3906	7270
45°	860	2943	6473
50°	424	2017	5477
55°	336	1116	4297
60°	223	928	2882
65°	189	834	1286
70°	189	748	748
75°	250	803	744
80°	372	1014	832
85°	552	1657	1105

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6473 cd/sqm



TEST NUMBER: P1059032

CATALOG NUMBER: S123RDRP-S1000D850-X4F0-XX-UDD-BVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.7	7.6
10°-20°	209.2	19.5
20°-30°	259.7	24.3
30°-40°	232.6	21.7
40°-50°	152.9	14.3
50°-60°	76.6	7.2
60°-70°	30.3	2.8
70°-80°	17.0	1.6
80°-90°	10.7	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°	550.6	51.4
0°-40°	783.2	73.2
0°-60°	1012.8	94.6
0°-90°	1070.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1070.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	891	891	891	891	891	
5°	857	871	872	878	886	79
15°	688	710	741	792	820	192
25°	474	504	552	630	688	217
35°	252	286	350	458	545	156
45°	52	86	177	298	390	49
55°	16	19	54	147	210	15
65°	7	19	30	38	46	7
75°	6	18	18	16	16	6
85°	4	12	12	12	8	4
90°	0	0	0	0	0	



TEST NUMBER: P1059032

CATALOG NUMBER: S123RDRP-S1000D850-X4F0-XX-UDD-BVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	891.3	891.3	891.3	891.3	891.3
2.5°	880.4	892.7	885.8	885.8	887.2
5°	857.2	870.9	872.2	877.7	885.8
7.5°	823.2	840.9	849.0	865.4	877.7
10°	782.3	801.3	817.7	846.3	861.3
12.5°	737.3	756.4	780.9	820.4	843.6
15°	688.2	710.0	741.4	791.8	820.4
17.5°	637.8	659.6	697.8	755.0	791.8
20°	584.7	609.2	650.1	715.5	760.5
22.5°	531.5	558.8	602.4	673.2	725.0
25°	474.3	504.2	551.9	629.6	688.2
27.5°	419.8	451.1	501.5	586.0	652.8
30°	363.9	395.2	449.7	541.0	616.0
32.5°	306.6	342.1	399.3	498.8	579.2
35°	252.1	286.2	350.2	457.9	545.1
37.5°	199.0	233.0	299.8	418.4	511.1
40°	145.8	181.3	254.8	380.2	474.3
42.5°	95.4	132.2	215.3	342.1	433.4
45°	51.8	85.9	177.2	298.5	389.8
47.5°	28.6	46.3	143.1	257.6	347.5
50°	23.2	25.9	110.4	219.4	299.8
52.5°	19.1	21.8	79.0	182.6	256.2
55°	16.4	19.1	54.5	147.2	209.9
57.5°	13.6	16.4	43.6	113.1	164.9
60°	9.5	16.4	39.5	83.1	122.7
62.5°	8.2	16.4	34.1	57.2	81.8
65°	6.8	19.1	30.0	38.2	46.3
67.5°	5.5	19.1	25.9	24.5	24.5
70°	5.5	19.1	21.8	20.4	21.8
72.5°	5.5	20.4	20.4	19.1	19.1
75°	5.5	17.7	17.7	16.4	16.4
77.5°	5.5	16.4	16.4	15.0	15.0
80°	5.5	15.0	15.0	13.6	12.3
82.5°	5.5	13.6	13.6	12.3	10.9
85°	4.1	12.3	12.3	12.3	8.2
87.5°	4.1	10.9	12.3	10.9	6.8
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059032
 CATALOG NUMBER: S123RDRP-S1000D850-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	0.63	1.89	1.00	2.20	2.52	14.70	15.96	15.07	16.27	16.59
	3H	3.16	4.27	3.54	4.60	4.97	14.78	15.89	15.16	16.23	16.59
	4H	4.32	5.36	4.73	5.71	6.09	14.85	15.88	15.25	16.23	16.62
	6H	5.38	6.33	5.80	6.70	7.10	14.94	15.90	15.36	16.27	16.66
	8H	5.92	6.82	6.35	7.21	7.62	15.00	15.90	15.44	16.30	16.70
	12H	6.40	7.26	6.84	7.65	8.08	15.08	15.93	15.51	16.32	16.75
4H	2H	3.89	4.92	4.29	5.27	5.66	14.56	15.60	14.97	15.95	16.34
	3H	6.35	7.19	6.76	7.60	8.00	14.74	15.58	15.15	15.99	16.39
	4H	7.69	8.45	8.13	8.87	9.31	14.87	15.62	15.30	16.04	16.49
	6H	8.83	9.48	9.29	9.93	10.40	15.08	15.74	15.55	16.18	16.65
	8H	9.34	9.95	9.81	10.40	10.87	15.21	15.82	15.68	16.27	16.74
	12H	9.80	10.34	10.28	10.82	11.29	15.37	15.91	15.86	16.39	16.87
8H	4H	8.61	9.22	9.08	9.67	10.14	14.87	15.48	15.34	15.93	16.40
	6H	10.21	10.71	10.71	11.21	11.69	15.20	15.70	15.70	16.20	16.68
	8H	11.03	11.49	11.56	12.00	12.49	15.43	15.88	15.95	16.40	16.89
	12H	11.82	12.21	12.33	12.71	13.28	15.76	16.16	16.27	16.65	17.22
12H	4H	8.77	9.31	9.26	9.80	10.27	14.86	15.40	15.35	15.88	16.36
	6H	10.52	10.97	11.05	11.49	11.98	15.23	15.68	15.75	16.20	16.69
	8H	11.53	11.93	12.05	12.43	13.00	15.54	15.94	16.06	16.44	17.01