

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: P1059033

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059033
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)
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-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

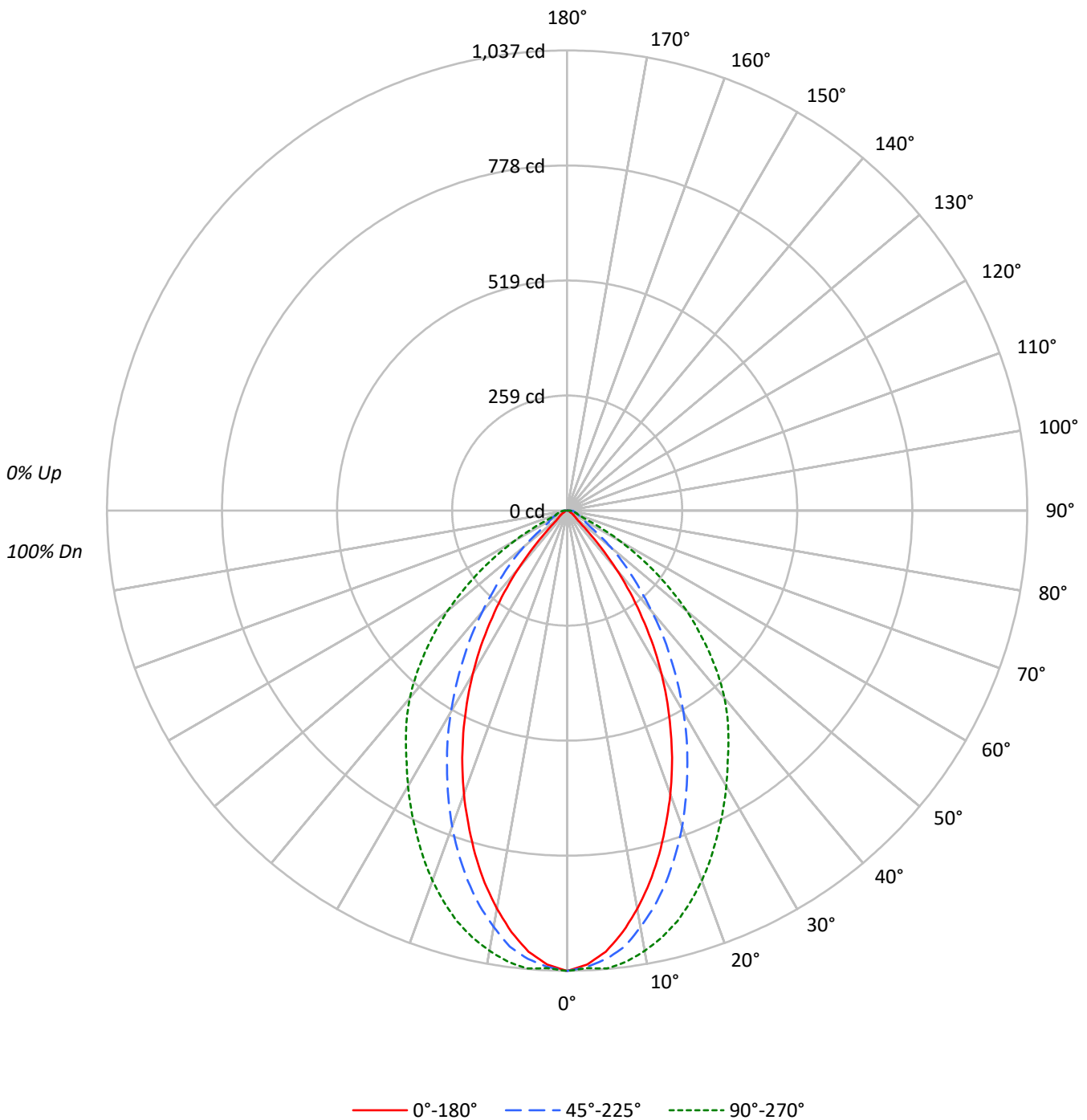
Lumens per Lamp: N/A
Luminaire Lumens: 1245.5 lumens
Efficiency: N/A
Efficacy: 35.6 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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: P1059033

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

Luminous Intensity Polar Plot





TEST NUMBER: P1059033

CATALOG NUMBER: S123RDRP-S1000D850-X4F0-XX-UDD-BVL-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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92					90				
2	105	99	94	90	102	97	92	88	94	90	87	91	87	85	88	85	83					81				
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75					73				
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68					66				
5	86	76	69	64	84	75	69	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	65	58	53	63	57	53	62	56	52	61	56	52					50				
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48					47				
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	42					40				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12182	12182	12182
5°	11763	11955	12212
10°	10858	11362	12012
15°	9745	10507	11650
20°	8500	9471	11090
25°	7171	8301	10403
30°	5767	7098	9723
35°	4222	5843	9087
40°	2633	4556	8463
45°	996	3396	7539
50°	473	2340	6425
55°	362	1284	4969
60°	256	1087	3264
65°	189	947	1364
70°	189	889	889
75°	250	926	926
80°	372	1109	1014
85°	741	1832	1469

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7539 cd/sqm

TEST NUMBER: P1059033

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.2	7.6
10°-20°	244.2	19.6
20°-30°	302.3	24.3
30°-40°	271.0	21.8
40°-50°	177.7	14.3
50°-60°	88.9	7.1
60°-70°	34.7	2.8
70°-80°	19.5	1.6
80°-90°	12.1	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°	641.7	51.5
0°-40°	912.7	73.3
0°-60°	1179.3	94.7
0°-90°	1245.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1245.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1037	1037	1037	1037	1037	
5°	998	1014	1014	1025	1036	92
15°	802	834	864	922	958	223
25°	554	588	641	732	803	253
35°	294	334	408	530	634	183
45°	60	97	204	350	454	57
55°	18	22	63	172	243	16
65°	7	20	34	45	49	7
75°	6	20	20	20	20	6
85°	6	14	14	14	11	5
90°	0	0	0	0	0	



TEST NUMBER: P1059033

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1037.4	1037.4	1037.4	1037.4	1037.4
2.5°	1023.8	1038.8	1029.2	1030.6	1032.0
5°	997.9	1014.2	1014.2	1025.1	1036.0
7.5°	958.3	977.4	991.1	1010.1	1025.1
10°	910.6	933.8	952.9	987.0	1007.4
12.5°	858.8	887.5	912.0	957.0	985.6
15°	801.6	834.3	864.3	921.5	958.3
17.5°	740.2	772.9	812.5	879.3	924.3
20°	680.2	713.0	757.9	832.9	887.5
22.5°	617.5	651.6	699.3	782.5	846.6
25°	553.5	587.5	640.7	732.0	802.9
27.5°	489.4	523.5	583.5	683.0	760.7
30°	425.3	459.4	523.5	629.8	717.1
32.5°	361.3	398.1	464.9	580.7	673.4
35°	294.5	334.0	407.6	530.3	633.9
37.5°	233.1	269.9	353.1	486.7	594.4
40°	171.8	211.3	297.2	444.4	552.1
42.5°	111.8	154.0	246.7	398.1	504.4
45°	60.0	96.8	204.5	350.3	454.0
47.5°	32.7	53.2	164.9	299.9	402.1
50°	25.9	30.0	128.1	256.3	351.7
52.5°	21.8	24.5	91.3	215.4	295.8
55°	17.7	21.8	62.7	171.8	242.7
57.5°	15.0	19.1	49.1	133.6	189.5
60°	10.9	16.4	46.3	98.2	139.0
62.5°	8.2	17.7	40.9	68.2	91.3
65°	6.8	20.4	34.1	45.0	49.1
67.5°	5.5	21.8	30.0	28.6	28.6
70°	5.5	20.4	25.9	24.5	25.9
72.5°	5.5	21.8	23.2	21.8	23.2
75°	5.5	20.4	20.4	20.4	20.4
77.5°	5.5	19.1	19.1	17.7	17.7
80°	5.5	16.4	16.4	16.4	15.0
82.5°	5.5	15.0	15.0	15.0	12.3
85°	5.5	13.6	13.6	13.6	10.9
87.5°	4.1	12.3	13.6	12.3	8.2
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1059033

CATALOG NUMBER: S123RDRP-S1000D850-X4F0-XX-UDD-BVL-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	1.05	2.30	1.41	2.62	2.93	15.29	16.55	15.66	16.86	17.17
	3H	3.38	4.49	3.76	4.82	5.19	15.37	16.48	15.75	16.81	17.18
	4H	4.48	5.52	4.89	5.87	6.25	15.45	16.48	15.85	16.83	17.22
	6H	5.48	6.43	5.90	6.80	7.20	15.55	16.50	15.97	16.87	17.27
	8H	5.97	6.87	6.40	7.26	7.66	15.61	16.51	16.04	16.90	17.31
	12H	6.53	7.39	6.96	7.77	8.20	15.69	16.55	16.12	16.93	17.36
4H	2H	4.30	5.33	4.70	5.68	6.07	15.15	16.18	15.55	16.53	16.92
	3H	6.61	7.46	7.03	7.86	8.27	15.32	16.17	15.73	16.57	16.97
	4H	7.98	8.73	8.41	9.15	9.60	15.47	16.23	15.91	16.65	17.09
	6H	9.07	9.72	9.54	10.17	10.64	15.70	16.35	16.16	16.80	17.26
	8H	9.53	10.14	10.00	10.59	11.06	15.82	16.43	16.29	16.88	17.35
	12H	10.03	10.57	10.52	11.05	11.53	16.00	16.53	16.48	17.02	17.49
8H	4H	8.95	9.56	9.42	10.01	10.48	15.47	16.08	15.94	16.53	17.00
	6H	10.48	10.98	10.98	11.48	11.96	15.81	16.30	16.31	16.80	17.28
	8H	11.26	11.71	11.78	12.22	12.72	16.04	16.49	16.56	17.00	17.50
	12H	12.06	12.46	12.58	12.95	13.53	16.37	16.77	16.89	17.27	17.84
12H	4H	9.13	9.67	9.62	10.15	10.63	15.45	15.99	15.94	16.47	16.95
	6H	10.80	11.25	11.32	11.76	12.26	15.83	16.27	16.35	16.79	17.28
	8H	11.75	12.15	12.27	12.65	13.22	16.14	16.53	16.65	17.03	17.60