

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: P1059116

Luminaire Tested: S123RDR-S1165D850-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059116
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S1165D850-X4F0-XX-UDD-SVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

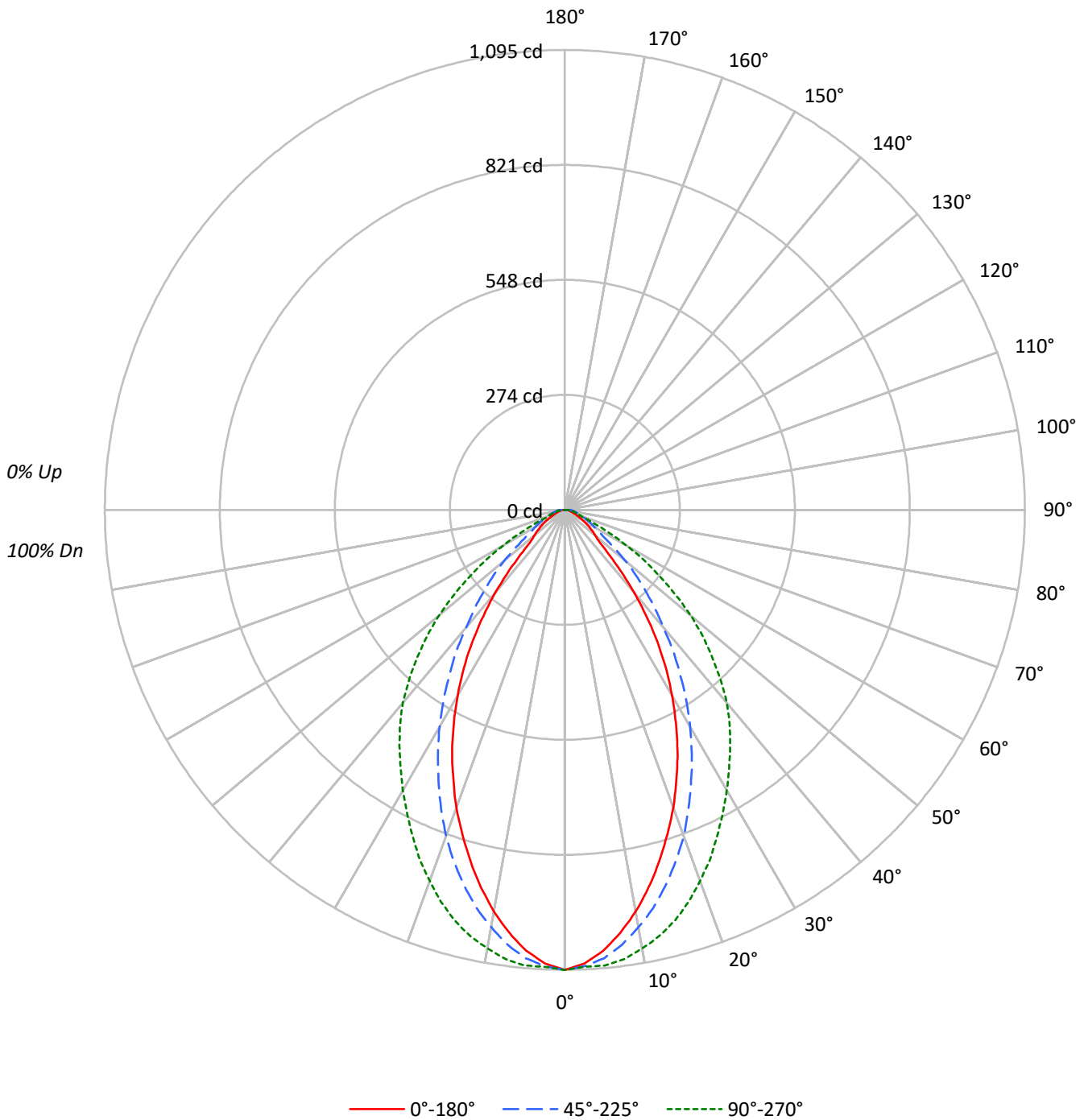
Lumens per Lamp: N/A
Luminaire Lumens: 1467.0 lumens
Efficiency: N/A
Efficacy: 35.1 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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: P1059116

CATALOG NUMBER: S123RDR-S1165D850-X4F0-XX-UDD-SVL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1059116

CATALOG NUMBER: S123RDR-S1165D850-X4F0-XX-UDD-SVL-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				100
1	111	108	105	102	109	106	103	100	101	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	91	81	74	69	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	61	69	64	60	68	63	59	58				58
6	79	68	61	56	78	67	60	55	66	60	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	56	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	50	43	39	49	43	39	48	43	39	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12863	12863	12863
5°	12421	12629	12836
10°	11574	12031	12641
15°	10536	11256	12305
20°	9432	10330	11750
25°	8225	9220	11105
30°	6916	8088	10451
35°	5502	6853	9834
40°	3923	5589	9193
45°	2337	4487	8232
50°	1723	3418	7128
55°	1441	2324	5663
60°	1165	1916	3981
65°	934	1645	2134
70°	769	1428	1318
75°	726	1379	1234
80°	757	1515	1190
85°	1078	2156	1509

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8232 cd/sqm



TEST NUMBER: P1059116

CATALOG NUMBER: S123RDR-S1165D850-X4F0-XX-UDD-SVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.6	6.9
10°-20°	261.4	17.8
20°-30°	333.4	22.7
30°-40°	313.7	21.4
40°-50°	225.4	15.4
50°-60°	129.2	8.8
60°-70°	59.1	4.0
70°-80°	29.7	2.0
80°-90°	14.5	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°	695.4	47.4
0°-40°	1009.1	68.8
0°-60°	1363.7	93.0
0°-90°	1467.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1467.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1095	1095	1095	1095	1095	
5°	1054	1075	1071	1079	1089	98
15°	867	897	926	976	1012	242
25°	635	664	712	788	857	290
35°	384	411	478	587	686	238
45°	141	171	270	398	496	118
55°	70	72	114	210	277	63
65°	34	46	59	66	77	34
75°	16	32	30	27	27	18
85°	8	16	16	14	11	8
90°	0	0	0	0	0	



TEST NUMBER: P1059116

CATALOG NUMBER: S123RDR-S1165D850-X4F0-XX-UDD-SVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1095.4	1095.4	1095.4	1095.4	1095.4
2.5°	1081.0	1097.0	1087.4	1087.4	1089.0
5°	1053.8	1074.6	1071.4	1079.4	1089.0
7.5°	1015.4	1037.8	1044.2	1063.4	1079.4
10°	970.7	996.2	1009.0	1039.4	1060.2
12.5°	921.1	949.9	970.7	1009.0	1039.4
15°	866.7	897.1	925.9	975.5	1012.2
17.5°	810.7	841.1	877.9	935.5	978.7
20°	754.8	785.2	826.7	887.5	940.3
22.5°	694.0	724.4	769.2	837.9	901.9
25°	634.8	663.6	711.6	788.4	857.1
27.5°	572.5	601.3	654.0	737.2	813.9
30°	510.1	538.9	596.5	686.0	770.8
32.5°	447.7	474.9	537.3	636.4	727.6
35°	383.8	411.0	478.1	586.9	686.0
37.5°	318.2	345.4	423.8	542.1	644.4
40°	255.9	286.2	364.6	497.3	599.7
42.5°	195.1	227.1	316.6	449.3	548.5
45°	140.7	171.1	270.2	398.2	495.7
47.5°	107.1	123.1	228.7	347.0	444.6
50°	94.3	95.9	187.1	300.6	390.2
52.5°	81.6	83.2	145.5	255.9	332.6
55°	70.4	72.0	113.5	209.5	276.6
57.5°	59.2	62.4	92.7	166.3	222.3
60°	49.6	56.0	81.6	126.3	169.5
62.5°	40.0	51.2	70.4	92.7	121.5
65°	33.6	46.4	59.2	65.6	76.8
67.5°	27.2	43.2	49.6	46.4	46.4
70°	22.4	38.4	41.6	38.4	38.4
72.5°	19.2	36.8	35.2	32.0	32.0
75°	16.0	32.0	30.4	27.2	27.2
77.5°	14.4	27.2	25.6	24.0	22.4
80°	11.2	22.4	22.4	20.8	17.6
82.5°	9.6	19.2	19.2	17.6	14.4
85°	8.0	16.0	16.0	14.4	11.2
87.5°	6.4	14.4	14.4	12.8	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)