

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: P1059117

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059117
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: S123RDR-S1165D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

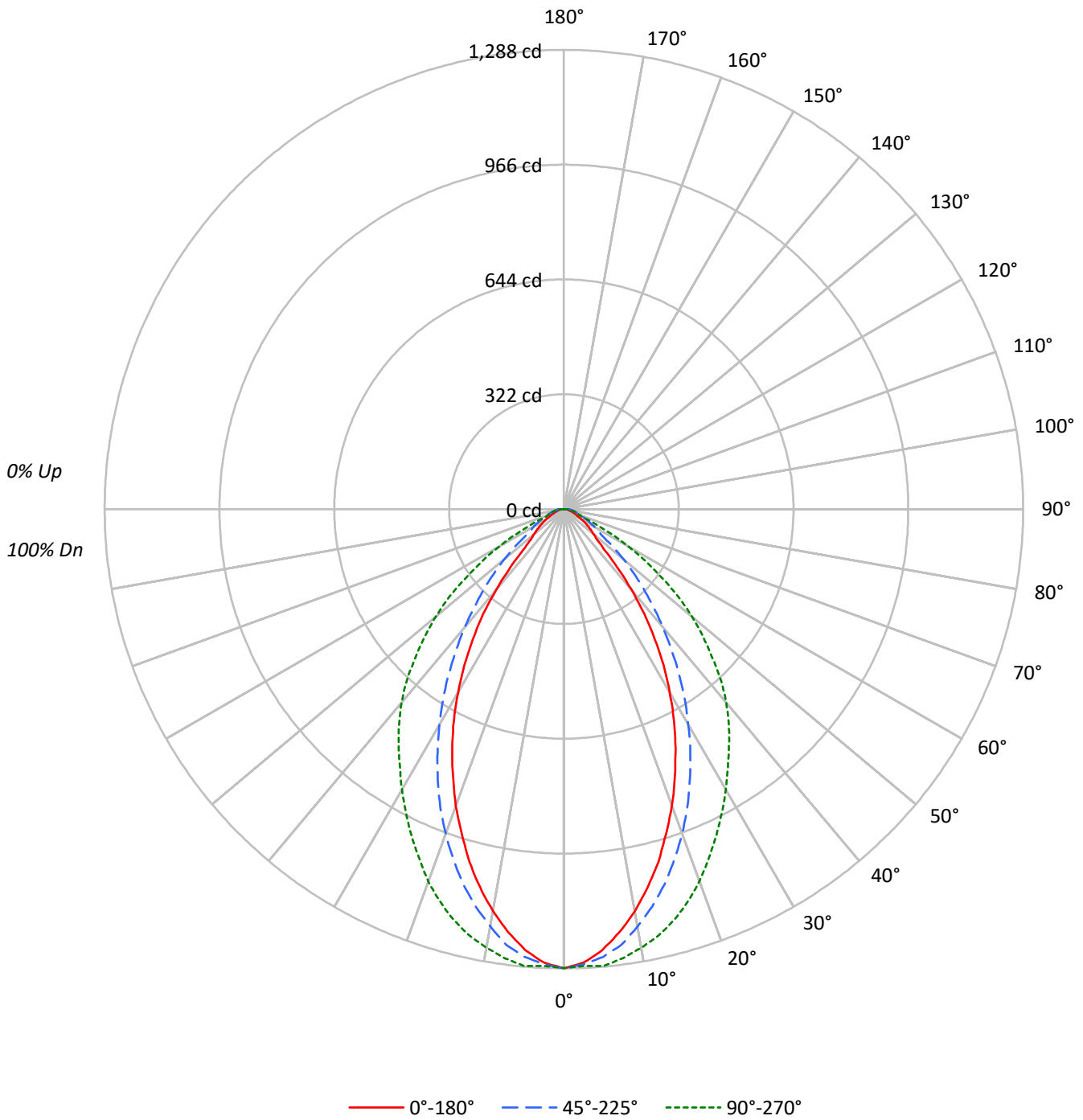
Lumens per Lamp: N/A
Luminaire Lumens: 1728.5 lumens
Efficiency: N/A
Efficacy: 41.4 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P1059117

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

Luminous Intensity Polar Plot





TEST NUMBER: P1059117

CATALOG NUMBER: S123RDR-S1165D850-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	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°	15120	15120	15120
5°	14630	14857	15158
10°	13655	14170	14895
15°	12445	13242	14505
20°	11073	12112	13891
25°	9595	10838	13098
30°	8046	9456	12318
35°	6375	8048	11578
40°	4511	6620	10862
45°	2655	5233	9774
50°	1988	3973	8562
55°	1671	2686	6877
60°	1353	2292	4883
65°	1067	1956	2578
70°	934	1703	1593
75°	871	1597	1524
80°	866	1731	1515
85°	1078	2587	1940

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9774 cd/sqm

TEST NUMBER: P1059117

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.5	6.9
10°-20°	308.0	17.8
20°-30°	392.2	22.7
30°-40°	368.9	21.3
40°-50°	265.7	15.4
50°-60°	153.5	8.9
60°-70°	70.2	4.1
70°-80°	35.0	2.0
80°-90°	16.6	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°	818.7	47.4
0°-40°	1187.6	68.7
0°-60°	1606.7	93.0
0°-90°	1728.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1728.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1288	1288	1288	1288	1288	
5°	1241	1262	1260	1273	1286	115
15°	1024	1060	1089	1150	1193	285
25°	741	779	836	929	1011	339
35°	445	483	561	691	808	276
45°	160	200	315	473	589	135
55°	82	85	131	250	336	73
65°	38	54	70	78	93	39
75°	19	37	35	34	34	20
85°	8	18	19	18	14	9
90°	0	0	0	0	0	



TEST NUMBER: P1059117

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1287.6	1287.6	1287.6	1287.6	1287.6
2.5°	1273.2	1289.2	1278.0	1279.6	1282.8
5°	1241.2	1262.0	1260.4	1273.2	1286.0
7.5°	1196.4	1220.4	1233.2	1252.4	1270.0
10°	1145.2	1172.4	1188.4	1223.6	1249.2
12.5°	1086.1	1121.2	1142.0	1188.4	1225.2
15°	1023.7	1060.5	1089.3	1150.0	1193.2
17.5°	953.3	993.3	1030.1	1102.0	1154.8
20°	886.1	924.5	969.3	1047.7	1111.6
22.5°	812.5	854.1	905.3	988.5	1060.5
25°	740.6	779.0	836.5	929.3	1010.9
27.5°	668.6	707.0	767.8	870.1	959.7
30°	593.4	633.4	697.4	810.9	908.5
32.5°	519.8	558.2	630.2	753.4	855.7
35°	444.7	483.0	561.4	691.0	807.7
37.5°	371.1	411.1	494.2	639.8	759.8
40°	294.3	337.5	431.9	587.0	708.6
42.5°	222.3	268.7	369.5	532.6	652.6
45°	159.9	199.9	315.1	473.4	588.6
47.5°	124.8	145.6	265.5	412.7	529.4
50°	108.8	112.0	217.5	356.7	468.7
52.5°	94.4	97.6	171.1	303.9	404.7
55°	81.6	84.8	131.2	249.5	335.9
57.5°	68.8	73.6	108.8	198.3	270.3
60°	57.6	64.0	97.6	152.0	207.9
62.5°	46.4	57.6	83.2	112.0	148.8
65°	38.4	54.4	70.4	78.4	92.8
67.5°	32.0	49.6	59.2	56.0	54.4
70°	27.2	44.8	49.6	44.8	46.4
72.5°	22.4	41.6	41.6	38.4	38.4
75°	19.2	36.8	35.2	33.6	33.6
77.5°	16.0	32.0	30.4	28.8	27.2
80°	12.8	25.6	25.6	24.0	22.4
82.5°	11.2	20.8	20.8	20.8	17.6
85°	8.0	17.6	19.2	17.6	14.4
87.5°	6.4	16.0	16.0	14.4	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)