

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: P1055585

Luminaire Tested: S123R3DR-S1165D850-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055585
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-6)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S1165D850-X4F0-XX-UDD-FLL-S
Description: DEFINE 3, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

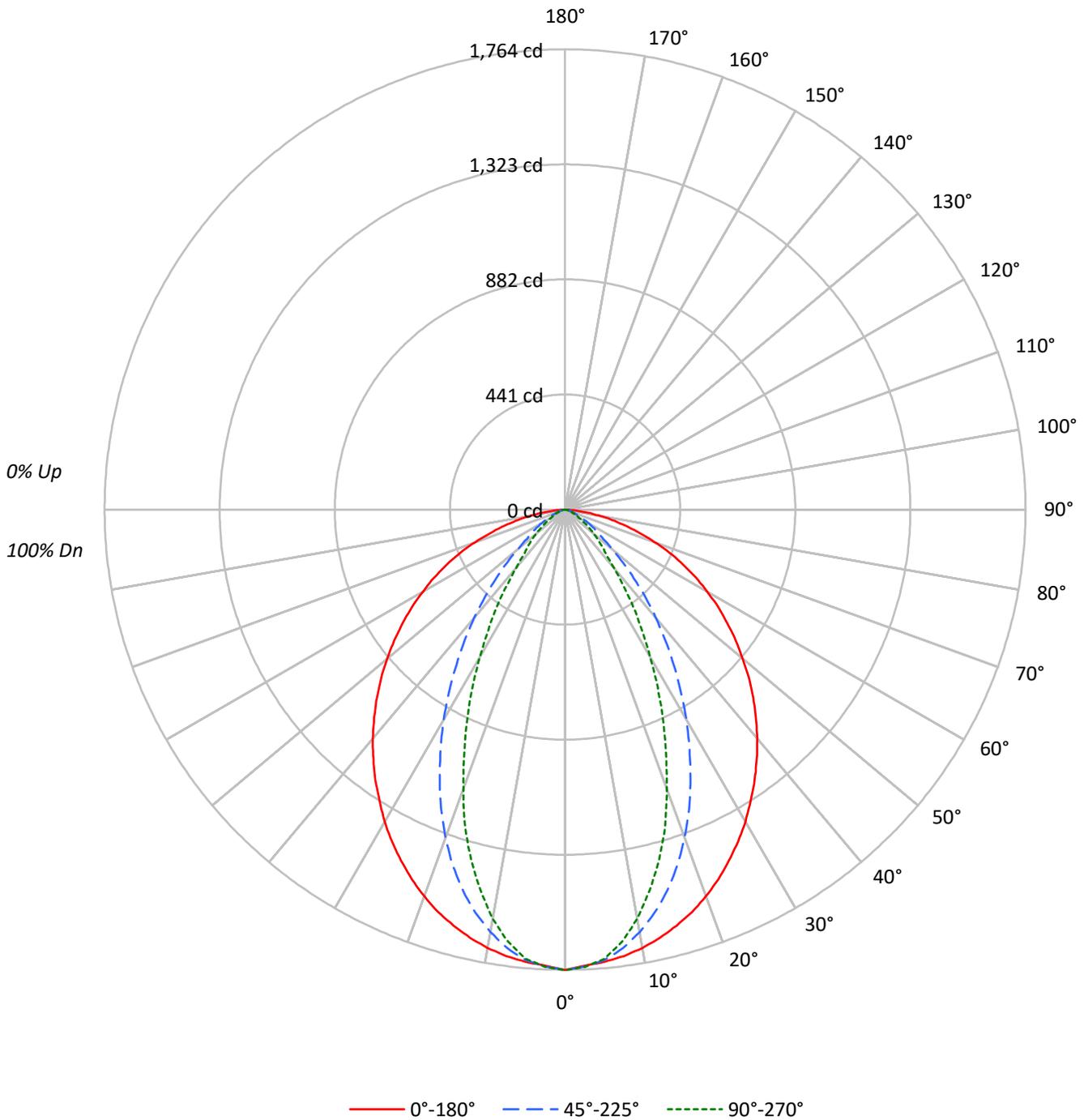
Lumens per Lamp: N/A
Luminaire Lumens: 2453.9 lumens
Efficiency: N/A
Efficacy: 58.6 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.77 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
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

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Luminous Intensity Polar Plot





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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	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79				79
3	96	88	81	76	94	86	80	76	84	78	74	81	77	73	79	75	72	70				70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62				62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56				56
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53	51				51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46				46
8	69	57	50	45	68	57	50	45	56	49	45	54	49	44	53	48	44	42				42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39				39
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36				36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21274	21274	21274
5°	21051	20970	20909
10°	20886	20128	19494
15°	20605	18872	17348
20°	20236	17167	14614
25°	19757	15108	11792
30°	19233	12946	9081
35°	18635	10684	6720
40°	18032	8502	4580
45°	17367	6360	3451
50°	16658	4423	2697
55°	15927	3235	1970
60°	15165	2421	1411
65°	14267	1623	1098
70°	12912	1181	885
75°	11143	857	703
80°	8943	694	583
85°	4634	692	456

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17367 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.1	6.6
10°-20°	424.6	17.3
20°-30°	533.4	21.7
30°-40°	496.8	20.2
40°-50°	380.3	15.5
50°-60°	252.8	10.3
60°-70°	136.3	5.6
70°-80°	55.8	2.3
80°-90°	10.7	0.4
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°	1121.1	45.7
0°-40°	1618.0	65.9
0°-60°	2251.1	91.7
0°-90°	2453.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2453.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1764	1764	1764	1764	1764	
5°	1739	1758	1733	1726	1728	165
15°	1651	1624	1512	1423	1390	465
25°	1485	1385	1136	947	886	684
35°	1266	1079	726	514	457	792
45°	1019	753	373	219	202	786
55°	758	438	154	107	94	679
65°	500	169	57	42	38	494
75°	239	40	18	17	15	256
85°	34	5	5	5	3	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1764.5	1764.5	1764.5	1764.5	1764.5
2.5°	1749.5	1771.2	1752.8	1754.5	1754.5
5°	1739.4	1757.8	1732.7	1726.1	1727.7
7.5°	1726.1	1737.8	1696.0	1674.2	1670.9
10°	1706.0	1709.3	1644.1	1605.6	1592.3
12.5°	1680.9	1669.2	1583.9	1520.3	1495.2
15°	1650.8	1624.0	1512.0	1423.3	1389.9
17.5°	1617.3	1572.2	1430.0	1314.6	1274.5
20°	1577.2	1513.6	1338.0	1194.2	1139.0
22.5°	1533.7	1451.8	1241.0	1070.4	1008.5
25°	1485.2	1384.9	1135.7	946.7	886.4
27.5°	1435.0	1312.9	1032.0	829.6	767.7
30°	1381.5	1239.4	929.9	715.8	652.3
32.5°	1323.0	1159.1	824.6	610.5	546.9
35°	1266.1	1078.8	725.9	513.5	456.6
37.5°	1205.9	998.5	630.5	428.2	364.6
40°	1145.7	916.6	540.2	344.5	291.0
42.5°	1082.1	834.6	454.9	274.3	232.5
45°	1018.6	752.6	373.0	219.1	202.4
47.5°	955.0	670.7	301.1	189.0	172.3
50°	888.1	592.1	235.8	160.6	143.8
52.5°	824.6	513.5	184.0	132.1	117.1
55°	757.7	438.2	153.9	107.0	93.7
57.5°	695.8	361.3	127.1	83.6	73.6
60°	628.9	292.7	100.4	65.2	58.5
62.5°	565.3	229.1	76.9	51.8	46.8
65°	500.1	168.9	56.9	41.8	38.5
67.5°	434.9	122.1	43.5	33.5	31.8
70°	366.3	92.0	33.5	26.8	25.1
72.5°	301.1	65.2	25.1	21.7	20.1
75°	239.2	40.1	18.4	16.7	15.1
77.5°	184.0	23.4	13.4	13.4	11.7
80°	128.8	13.4	10.0	10.0	8.4
82.5°	78.6	8.4	6.7	6.7	6.7
85°	33.5	5.0	5.0	5.0	3.3
87.5°	5.0	1.7	1.7	1.7	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)