

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: P1059039

Luminaire Tested: S123RDR-S1000D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059039
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S1000D850-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

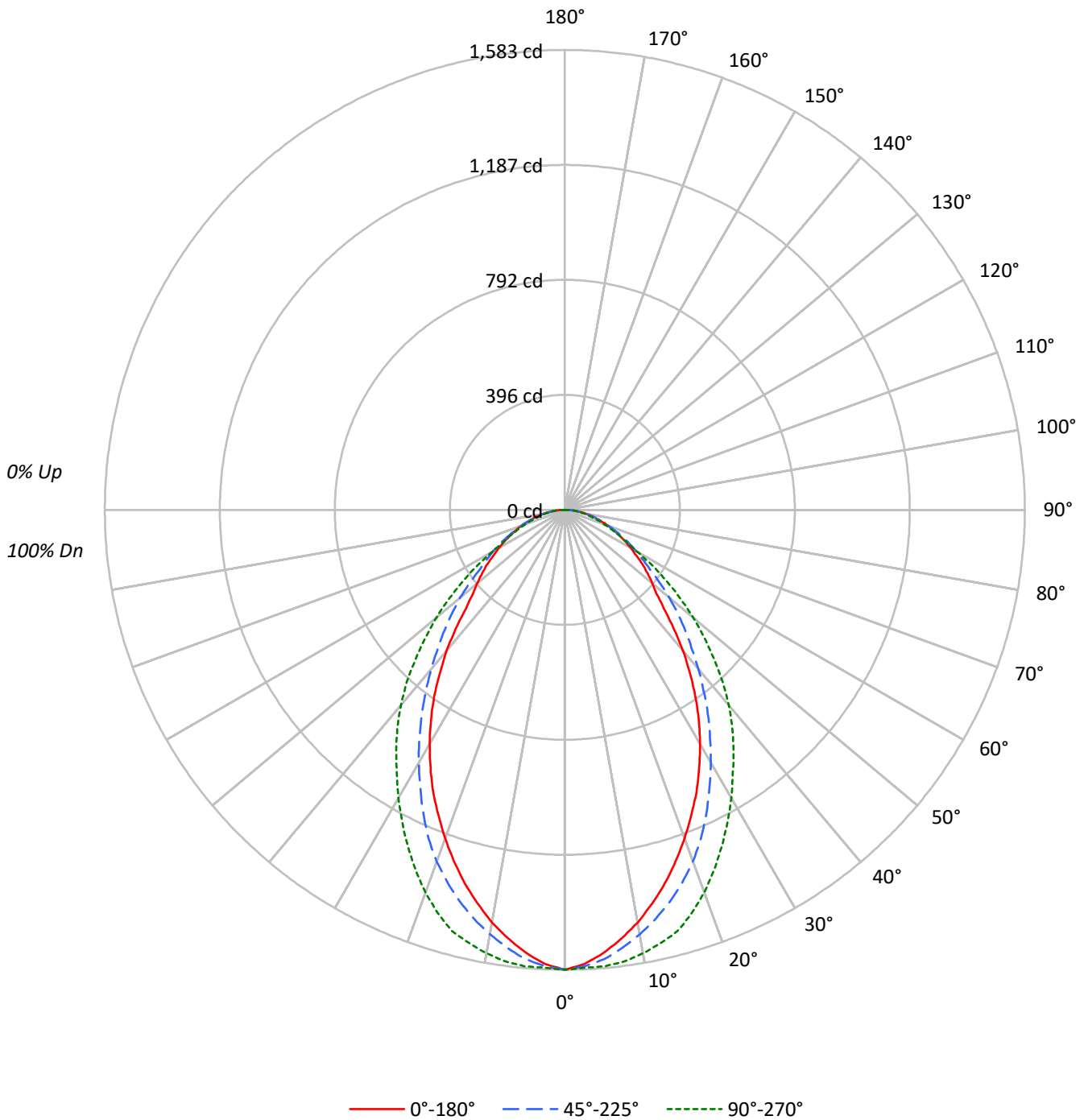
Lumens per Lamp: N/A
Luminaire Lumens: 2781.1 lumens
Efficiency: N/A
Efficacy: 79.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (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				
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87				
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75				
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66				
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58				
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51				
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46				
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41				
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38				
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34				
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18585	18585	18585
5°	18045	18302	18591
10°	17199	17685	18482
15°	16177	16972	18246
20°	15045	16101	17513
25°	13888	14930	16553
30°	12614	13630	15532
35°	11227	12301	14507
40°	9688	10962	13445
45°	8008	9703	12056
50°	7190	8559	10524
55°	6664	7305	8727
60°	6141	6653	6686
65°	5715	6018	5601
70°	5376	5473	4910
75°	5068	4882	4324
80°	4788	4422	4051
85°	4594	4958	4594

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12056 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.6	5.3
10°-20°	394.9	14.2
20°-30°	534.3	19.2
30°-40°	549.0	19.7
40°-50°	461.1	16.6
50°-60°	330.6	11.9
60°-70°	210.5	7.6
70°-80°	115.6	4.2
80°-90°	38.6	1.4
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°	1075.7	38.7
0°-40°	1624.8	58.4
0°-60°	2416.4	86.9
0°-90°	2781.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2781.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1583	1583	1583	1583	1583	
5°	1531	1558	1553	1564	1577	143
15°	1331	1368	1396	1456	1501	373
25°	1072	1113	1152	1215	1278	491
35°	783	825	858	934	1012	487
45°	482	524	584	669	726	381
55°	326	332	357	404	426	291
65°	206	218	217	204	202	205
75°	112	123	108	99	95	119
85°	34	35	37	38	34	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1582.7	1582.7	1582.7	1582.7	1582.7
2.5°	1565.0	1586.8	1571.8	1573.1	1577.2
5°	1530.9	1558.2	1552.7	1563.6	1577.2
7.5°	1488.7	1518.7	1520.0	1545.9	1567.7
10°	1442.4	1473.7	1483.2	1522.7	1550.0
12.5°	1387.9	1422.0	1442.4	1491.4	1526.8
15°	1330.7	1367.5	1396.1	1456.0	1500.9
17.5°	1268.0	1307.5	1344.3	1408.3	1454.6
20°	1204.0	1246.3	1288.5	1348.4	1401.5
22.5°	1137.3	1180.9	1224.5	1283.0	1341.6
25°	1071.9	1112.8	1152.3	1214.9	1277.6
27.5°	1001.1	1043.3	1077.4	1146.8	1212.2
30°	930.3	972.5	1005.2	1077.4	1145.5
32.5°	856.7	900.3	930.3	1005.2	1076.0
35°	783.2	825.4	858.1	934.3	1012.0
37.5°	705.5	751.8	784.5	870.3	946.6
40°	632.0	675.6	715.1	805.0	877.1
42.5°	555.7	600.7	645.6	738.2	805.0
45°	482.2	524.4	584.3	668.8	726.0
47.5°	429.0	456.3	525.7	596.6	651.0
50°	393.6	404.5	468.5	531.2	576.1
52.5°	358.2	366.4	410.0	467.2	501.2
55°	325.5	332.3	356.8	404.5	426.3
57.5°	290.1	296.9	317.4	344.6	356.8
60°	261.5	267.0	283.3	287.4	284.7
62.5°	232.9	241.1	249.3	239.7	235.6
65°	205.7	217.9	216.6	204.3	201.6
67.5°	181.1	193.4	186.6	174.3	170.3
70°	156.6	168.9	159.4	147.1	143.0
72.5°	133.5	147.1	132.1	121.2	118.5
75°	111.7	122.6	107.6	99.4	95.3
77.5°	91.3	99.4	85.8	79.0	76.3
80°	70.8	76.3	65.4	61.3	59.9
82.5°	51.8	54.5	47.7	50.4	49.0
85°	34.1	35.4	36.8	38.1	34.1
87.5°	16.3	23.2	23.2	21.8	17.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)