

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: P1055558

Luminaire Tested: S123R3DR-S1000D850-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055558  
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-S1000D850-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: -

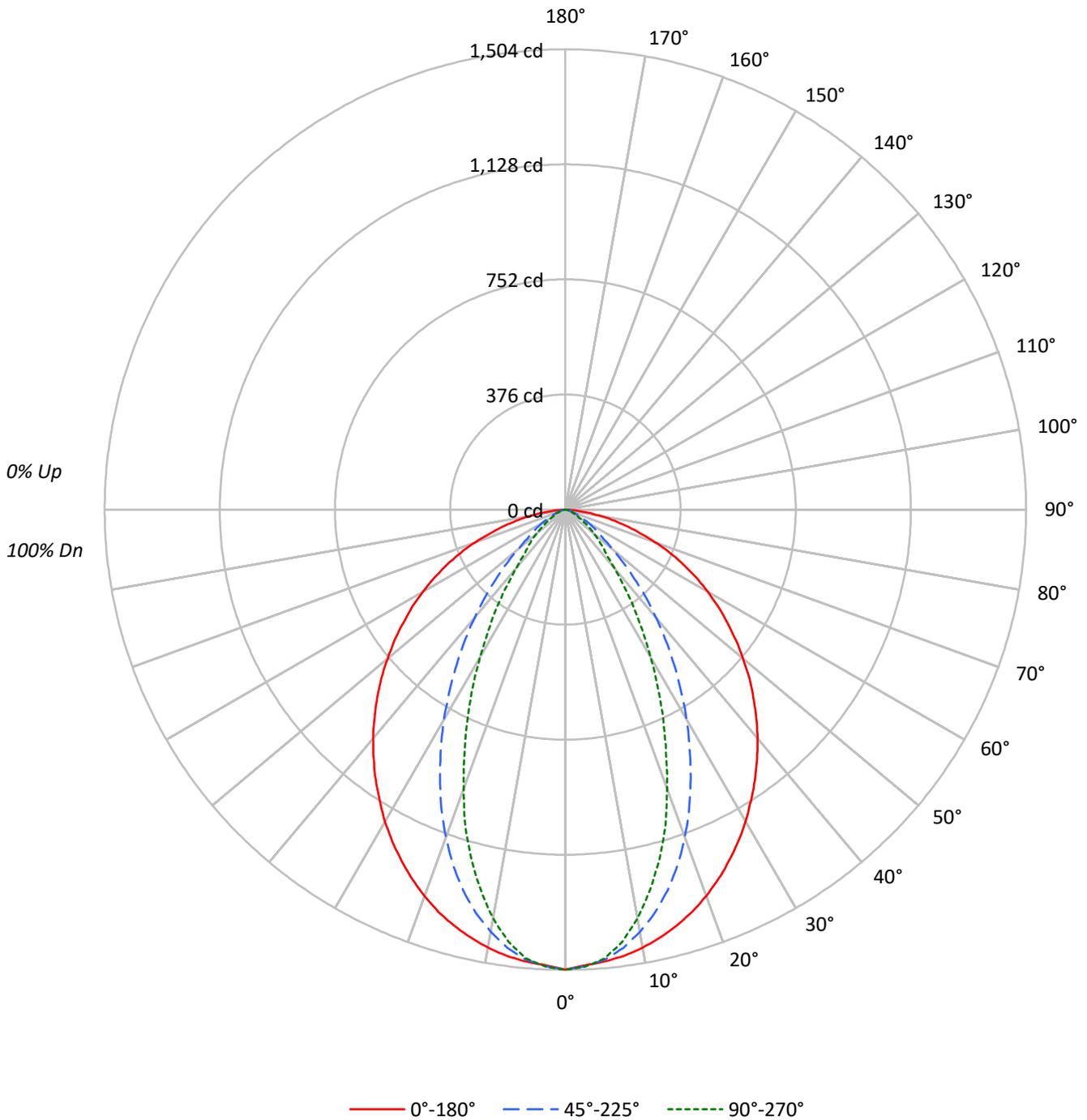
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2090.9 lumens  
Efficiency: N/A  
Efficacy: 60.3 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): 34.7  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79
3	96	88	81	76	94	86	80	76	84	78	74	81	77	73	79	75	72	70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53	51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46
8	69	57	50	45	68	57	50	45	56	49	45	54	49	44	53	48	44	42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	18127	18127	18127
5°	17937	17868	17817
10°	17796	17150	16609
15°	17557	16080	14782
20°	17242	14628	12452
25°	16835	12873	10048
30°	16388	11031	7738
35°	15878	9103	5727
40°	15364	7244	3903
45°	14798	5419	2939
50°	14193	3768	2300
55°	13570	2756	1677
60°	12922	2062	1203
65°	12156	1384	936
70°	11002	1005	754
75°	9493	731	596
80°	7616	597	493
85°	3942	595	401

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 14798 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.0	6.6
10°-20°	361.8	17.3
20°-30°	454.5	21.7
30°-40°	423.3	20.2
40°-50°	324.1	15.5
50°-60°	215.4	10.3
60°-70°	116.1	5.6
70°-80°	47.6	2.3
80°-90°	9.1	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°	955.3	45.7
0°-40°	1378.6	65.9
0°-60°	1918.1	91.7
0°-90°	2090.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2090.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1504	1504	1504	1504	1504	
5°	1482	1498	1476	1471	1472	141
15°	1407	1384	1288	1213	1184	396
25°	1266	1180	968	807	755	583
35°	1079	919	618	438	389	674
45°	868	641	318	187	172	670
55°	646	373	131	91	80	578
65°	426	144	48	36	33	421
75°	204	34	16	14	13	218
85°	28	4	4	4	3	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1503.5	1503.5	1503.5	1503.5	1503.5
2.5°	1490.7	1509.2	1493.5	1495.0	1495.0
5°	1482.1	1497.8	1476.4	1470.7	1472.2
7.5°	1470.7	1480.7	1445.1	1426.6	1423.7
10°	1453.6	1456.5	1400.9	1368.1	1356.7
12.5°	1432.3	1422.3	1349.6	1295.4	1274.1
15°	1406.6	1383.8	1288.3	1212.8	1184.3
17.5°	1378.1	1339.6	1218.5	1120.2	1086.0
20°	1343.9	1289.7	1140.1	1017.5	970.5
22.5°	1306.8	1237.0	1057.4	912.1	859.4
25°	1265.5	1180.0	967.7	806.6	755.3
27.5°	1222.8	1118.7	879.3	706.9	654.1
30°	1177.2	1056.0	792.4	610.0	555.8
32.5°	1127.3	987.6	702.6	520.2	466.0
35°	1078.8	919.2	618.5	437.5	389.1
37.5°	1027.5	850.8	537.3	364.8	310.7
40°	976.2	781.0	460.3	293.6	248.0
42.5°	922.1	711.1	387.6	233.7	198.1
45°	867.9	641.3	317.8	186.7	172.4
47.5°	813.8	571.5	256.5	161.0	146.8
50°	756.7	504.5	200.9	136.8	122.6
52.5°	702.6	437.5	156.8	112.6	99.8
55°	645.6	373.4	131.1	91.2	79.8
57.5°	592.9	307.8	108.3	71.3	62.7
60°	535.9	249.4	85.5	55.6	49.9
62.5°	481.7	195.2	65.6	44.2	39.9
65°	426.1	143.9	48.5	35.6	32.8
67.5°	370.5	104.0	37.1	28.5	27.1
70°	312.1	78.4	28.5	22.8	21.4
72.5°	256.5	55.6	21.4	18.5	17.1
75°	203.8	34.2	15.7	14.3	12.8
77.5°	156.8	20.0	11.4	11.4	10.0
80°	109.7	11.4	8.6	8.6	7.1
82.5°	67.0	7.1	5.7	5.7	5.7
85°	28.5	4.3	4.3	4.3	2.9
87.5°	4.3	1.4	1.4	1.4	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)