

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: P1055555

Luminaire Tested: S123R3DR-S1000D840-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055555  
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-S1000D840-X4F0-XX-UDD-FLL-S  
Description: DEFINE 3, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

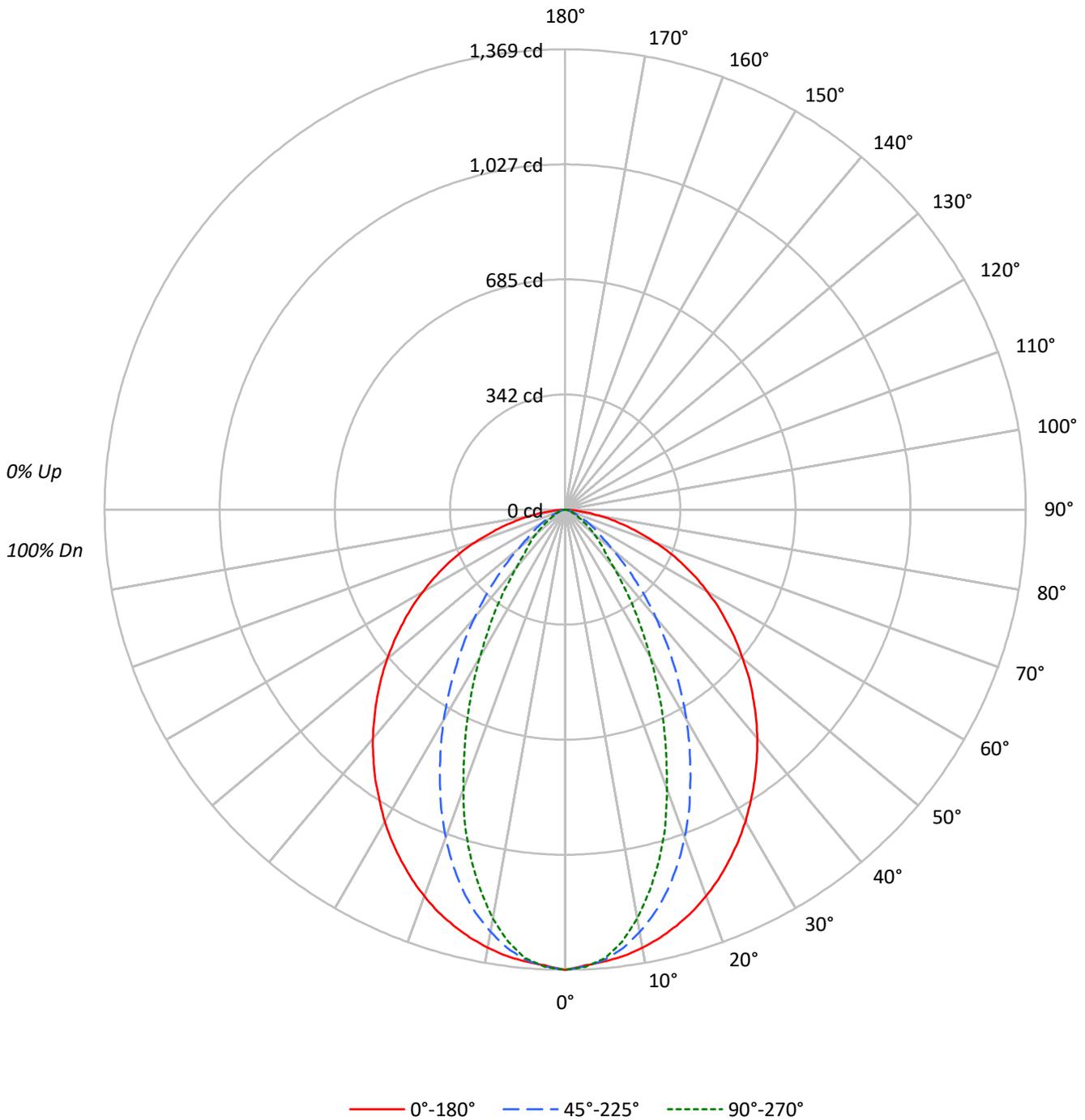
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1904.0 lumens  
Efficiency: N/A  
Efficacy: 54.9 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	61	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°	16506	16506	16506
5°	16333	16272	16225
10°	16205	15618	15124
15°	15988	14644	13460
20°	15702	13320	11339
25°	15330	11722	9150
30°	14922	10044	7046
35°	14459	8289	5215
40°	13992	6598	3554
45°	13475	4934	2677
50°	12925	3432	2093
55°	12357	2510	1528
60°	11767	1878	1095
65°	11069	1258	850
70°	10018	917	687
75°	8646	666	545
80°	6936	542	451
85°	3597	539	360

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 13475 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.6	6.6
10°-20°	329.4	17.3
20°-30°	413.9	21.7
30°-40°	385.5	20.2
40°-50°	295.1	15.5
50°-60°	196.2	10.3
60°-70°	105.7	5.6
70°-80°	43.3	2.3
80°-90°	8.3	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°	869.9	45.7
0°-40°	1255.4	65.9
0°-60°	1746.7	91.7
0°-90°	1904.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1904.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1369	1369	1369	1369	1369	
5°	1350	1364	1344	1339	1341	128
15°	1281	1260	1173	1104	1078	361
25°	1152	1074	881	734	688	531
35°	982	837	563	398	354	614
45°	790	584	289	170	157	610
55°	588	340	119	83	73	527
65°	388	131	44	32	30	383
75°	186	31	14	13	12	199
85°	26	4	4	4	3	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1369.1	1369.1	1369.1	1369.1	1369.1
2.5°	1357.4	1374.3	1360.0	1361.3	1361.3
5°	1349.6	1363.9	1344.5	1339.3	1340.6
7.5°	1339.3	1348.4	1315.9	1299.0	1296.4
10°	1323.7	1326.3	1275.7	1245.8	1235.4
12.5°	1304.2	1295.1	1229.0	1179.6	1160.2
15°	1280.9	1260.1	1173.2	1104.4	1078.4
17.5°	1254.9	1219.9	1109.6	1020.0	988.9
20°	1223.8	1174.5	1038.2	926.6	883.8
22.5°	1190.0	1126.4	962.9	830.6	782.5
25°	1152.4	1074.5	881.2	734.5	687.8
27.5°	1113.5	1018.7	800.7	643.7	595.7
30°	1071.9	961.6	721.5	555.4	506.1
32.5°	1026.5	899.3	639.8	473.7	424.4
35°	982.4	837.0	563.2	398.4	354.3
37.5°	935.7	774.8	489.2	332.2	282.9
40°	889.0	711.2	419.2	267.3	225.8
42.5°	839.6	647.6	353.0	212.8	180.4
45°	790.3	584.0	289.4	170.0	157.0
47.5°	741.0	520.4	233.6	146.6	133.7
50°	689.1	459.4	183.0	124.6	111.6
52.5°	639.8	398.4	142.8	102.5	90.8
55°	587.9	340.0	119.4	83.1	72.7
57.5°	539.9	280.3	98.6	64.9	57.1
60°	488.0	227.1	77.9	50.6	45.4
62.5°	438.6	177.8	59.7	40.2	36.3
65°	388.0	131.1	44.1	32.4	29.8
67.5°	337.4	94.7	33.7	26.0	24.7
70°	284.2	71.4	26.0	20.8	19.5
72.5°	233.6	50.6	19.5	16.9	15.6
75°	185.6	31.1	14.3	13.0	11.7
77.5°	142.8	18.2	10.4	10.4	9.1
80°	99.9	10.4	7.8	7.8	6.5
82.5°	61.0	6.5	5.2	5.2	5.2
85°	26.0	3.9	3.9	3.9	2.6
87.5°	3.9	1.3	1.3	1.3	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)