

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: P1055627

Luminaire Tested: S123R3DR-S340D950-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055627  
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-S340D950-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, 90 CRI LEDS  
Ballast/Driver: -

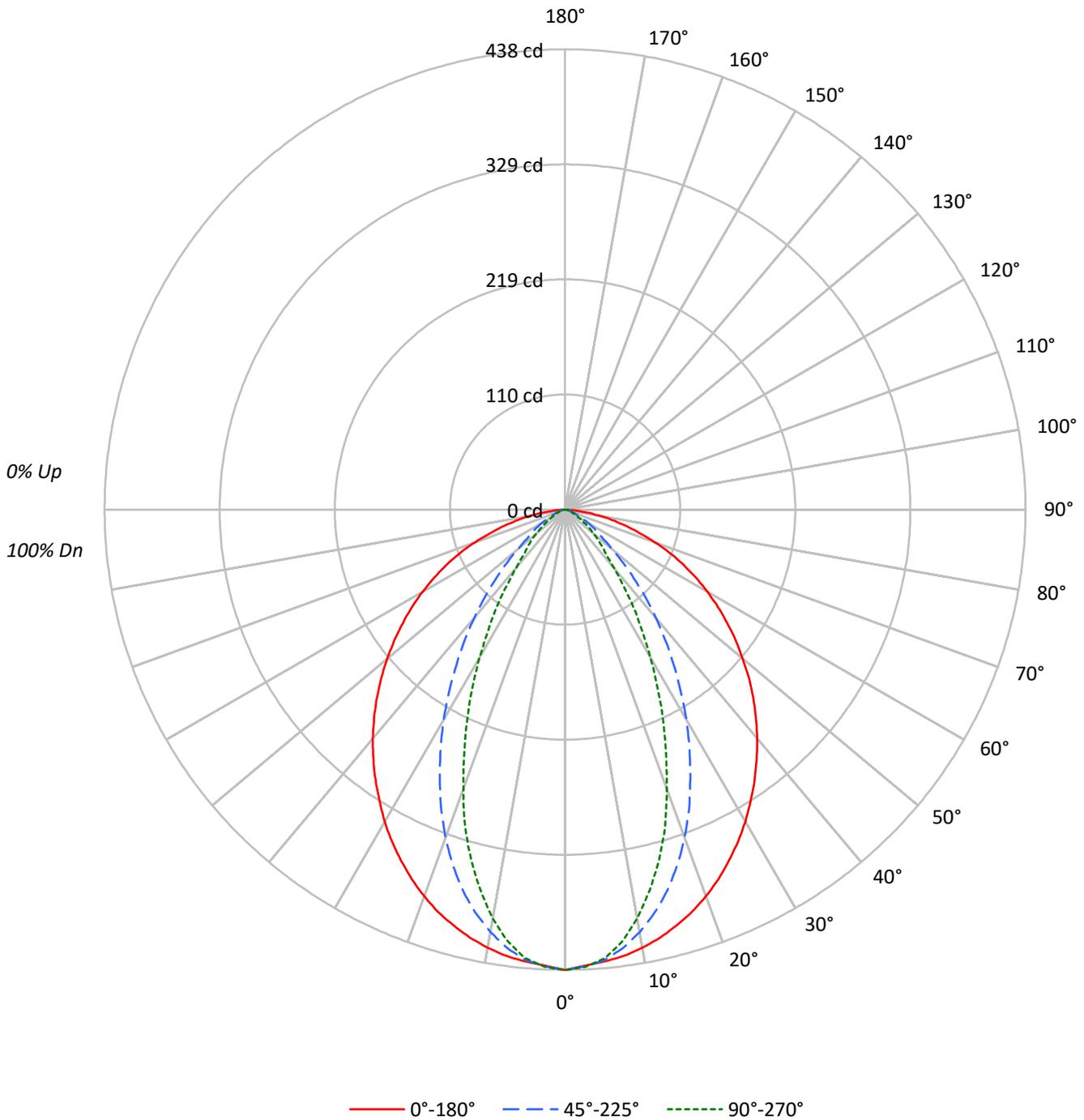
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 609.2 lumens  
Efficiency: N/A  
Efficacy: 48.4 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): 12.6  
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°	5282	5282	5282
5°	5226	5206	5191
10°	5185	4997	4839
15°	5115	4686	4307
20°	5024	4262	3628
25°	4905	3750	2928
30°	4775	3214	2254
35°	4626	2652	1669
40°	4476	2111	1138
45°	4312	1579	856
50°	4136	1097	670
55°	3954	803	490
60°	3764	600	350
65°	3543	402	274
70°	3204	293	219
75°	2767	214	172
80°	2222	174	146
85°	1148	166	111

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4312 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.5	6.6
10°-20°	105.4	17.3
20°-30°	132.4	21.7
30°-40°	123.3	20.2
40°-50°	94.4	15.5
50°-60°	62.8	10.3
60°-70°	33.8	5.6
70°-80°	13.9	2.3
80°-90°	2.6	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°	278.3	45.7
0°-40°	401.7	65.9
0°-60°	558.9	91.7
0°-90°	609.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	609.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	438	438	438	438	438	
5°	432	436	430	428	429	41
15°	410	403	375	353	345	115
25°	369	344	282	235	220	170
35°	314	268	180	128	113	197
45°	253	187	93	54	50	195
55°	188	109	38	27	23	169
65°	124	42	14	10	10	123
75°	59	10	5	4	4	64
85°	8	1	1	1	1	12
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	438.1	438.1	438.1	438.1	438.1
2.5°	434.3	439.7	435.2	435.6	435.6
5°	431.8	436.4	430.2	428.5	428.9
7.5°	428.5	431.4	421.0	415.7	414.8
10°	423.5	424.4	408.2	398.6	395.3
12.5°	417.3	414.4	393.2	377.4	371.2
15°	409.8	403.2	375.4	353.4	345.1
17.5°	401.5	390.3	355.0	326.4	316.4
20°	391.6	375.8	332.2	296.5	282.8
22.5°	380.8	360.4	308.1	265.8	250.4
25°	368.7	343.8	281.9	235.0	220.1
27.5°	356.3	326.0	256.2	206.0	190.6
30°	343.0	307.7	230.9	177.7	161.9
32.5°	328.5	287.8	204.7	151.6	135.8
35°	314.3	267.8	180.2	127.5	113.4
37.5°	299.4	247.9	156.5	106.3	90.5
40°	284.4	227.5	134.1	85.5	72.3
42.5°	268.7	207.2	112.9	68.1	57.7
45°	252.9	186.9	92.6	54.4	50.2
47.5°	237.1	166.5	74.7	46.9	42.8
50°	220.5	147.0	58.5	39.9	35.7
52.5°	204.7	127.5	45.7	32.8	29.1
55°	188.1	108.8	38.2	26.6	23.3
57.5°	172.7	89.7	31.6	20.8	18.3
60°	156.1	72.7	24.9	16.2	14.5
62.5°	140.3	56.9	19.1	12.9	11.6
65°	124.2	41.9	14.1	10.4	9.6
67.5°	108.0	30.3	10.8	8.3	7.9
70°	90.9	22.8	8.3	6.6	6.2
72.5°	74.7	16.2	6.2	5.4	5.0
75°	59.4	10.0	4.6	4.2	3.7
77.5°	45.7	5.8	3.3	3.3	2.9
80°	32.0	3.3	2.5	2.5	2.1
82.5°	19.5	2.1	1.7	1.7	1.7
85°	8.3	1.2	1.2	1.2	0.8
87.5°	1.2	0.4	0.4	0.4	0.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)