

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: P1055612

Luminaire Tested: S123R3DR-S340D850-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055612
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-S340D850-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: -

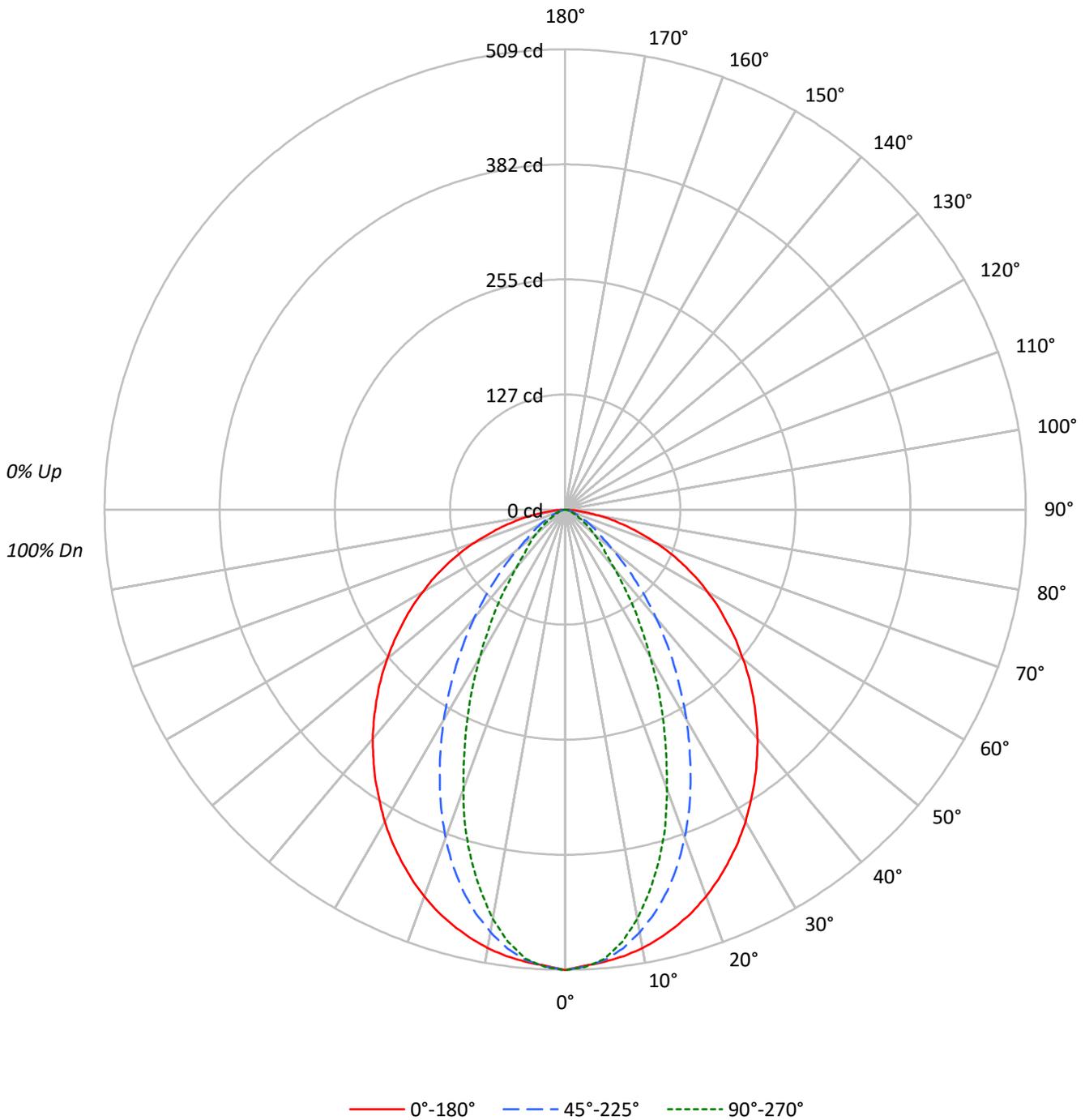
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 708.2 lumens
Efficiency: N/A
Efficacy: 56.2 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																		
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	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°	6139	6139	6139
5°	6075	6052	6034
10°	6028	5809	5625
15°	5946	5447	5006
20°	5840	4955	4217
25°	5702	4361	3403
30°	5551	3737	2621
35°	5378	3083	1940
40°	5205	2454	1322
45°	5013	1835	996
50°	4807	1277	778
55°	4597	933	568
60°	4376	699	408
65°	4117	468	317
70°	3726	342	254
75°	3214	247	200
80°	2583	201	167
85°	1342	194	138

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5013 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.1	6.6
10°-20°	122.5	17.3
20°-30°	154.0	21.7
30°-40°	143.4	20.2
40°-50°	109.8	15.5
50°-60°	73.0	10.3
60°-70°	39.3	5.6
70°-80°	16.1	2.3
80°-90°	3.1	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°	323.6	45.7
0°-40°	467.0	65.9
0°-60°	649.7	91.7
0°-90°	708.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	708.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	509	509	509	509	509	
5°	502	507	500	498	499	48
15°	476	469	436	411	401	134
25°	429	400	328	273	256	197
35°	365	311	210	148	132	228
45°	294	217	108	63	58	227
55°	219	126	44	31	27	196
65°	144	49	16	12	11	143
75°	69	12	5	5	4	74
85°	10	1	1	1	1	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	509.2	509.2	509.2	509.2	509.2
2.5°	504.9	511.2	505.9	506.4	506.4
5°	502.0	507.3	500.1	498.1	498.6
7.5°	498.1	501.5	489.5	483.2	482.2
10°	492.4	493.3	474.5	463.4	459.5
12.5°	485.1	481.7	457.1	438.8	431.5
15°	476.4	468.7	436.4	410.8	401.1
17.5°	466.8	453.7	412.7	379.4	367.8
20°	455.2	436.8	386.2	344.6	328.7
22.5°	442.6	419.0	358.2	308.9	291.1
25°	428.6	399.7	327.8	273.2	255.8
27.5°	414.2	378.9	297.8	239.4	221.6
30°	398.7	357.7	268.4	206.6	188.3
32.5°	381.8	334.5	238.0	176.2	157.8
35°	365.4	311.3	209.5	148.2	131.8
37.5°	348.0	288.2	182.0	123.6	105.2
40°	330.7	264.5	155.9	99.4	84.0
42.5°	312.3	240.9	131.3	79.2	67.1
45°	294.0	217.2	107.6	63.2	58.4
47.5°	275.6	193.6	86.9	54.5	49.7
50°	256.3	170.9	68.1	46.3	41.5
52.5°	238.0	148.2	53.1	38.1	33.8
55°	218.7	126.5	44.4	30.9	27.0
57.5°	200.8	104.3	36.7	24.1	21.2
60°	181.5	84.5	29.0	18.8	16.9
62.5°	163.2	66.1	22.2	15.0	13.5
65°	144.3	48.8	16.4	12.1	11.1
67.5°	125.5	35.2	12.6	9.7	9.2
70°	105.7	26.5	9.7	7.7	7.2
72.5°	86.9	18.8	7.2	6.3	5.8
75°	69.0	11.6	5.3	4.8	4.3
77.5°	53.1	6.8	3.9	3.9	3.4
80°	37.2	3.9	2.9	2.9	2.4
82.5°	22.7	2.4	1.9	1.9	1.9
85°	9.7	1.4	1.4	1.4	1.0
87.5°	1.4	0.5	0.5	0.5	0.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)