

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: P1055651

Luminaire Tested: S123R3DR-S560D940-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055651
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-S560D940-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, 90 CRI LEDS
Ballast/Driver: -

Summary

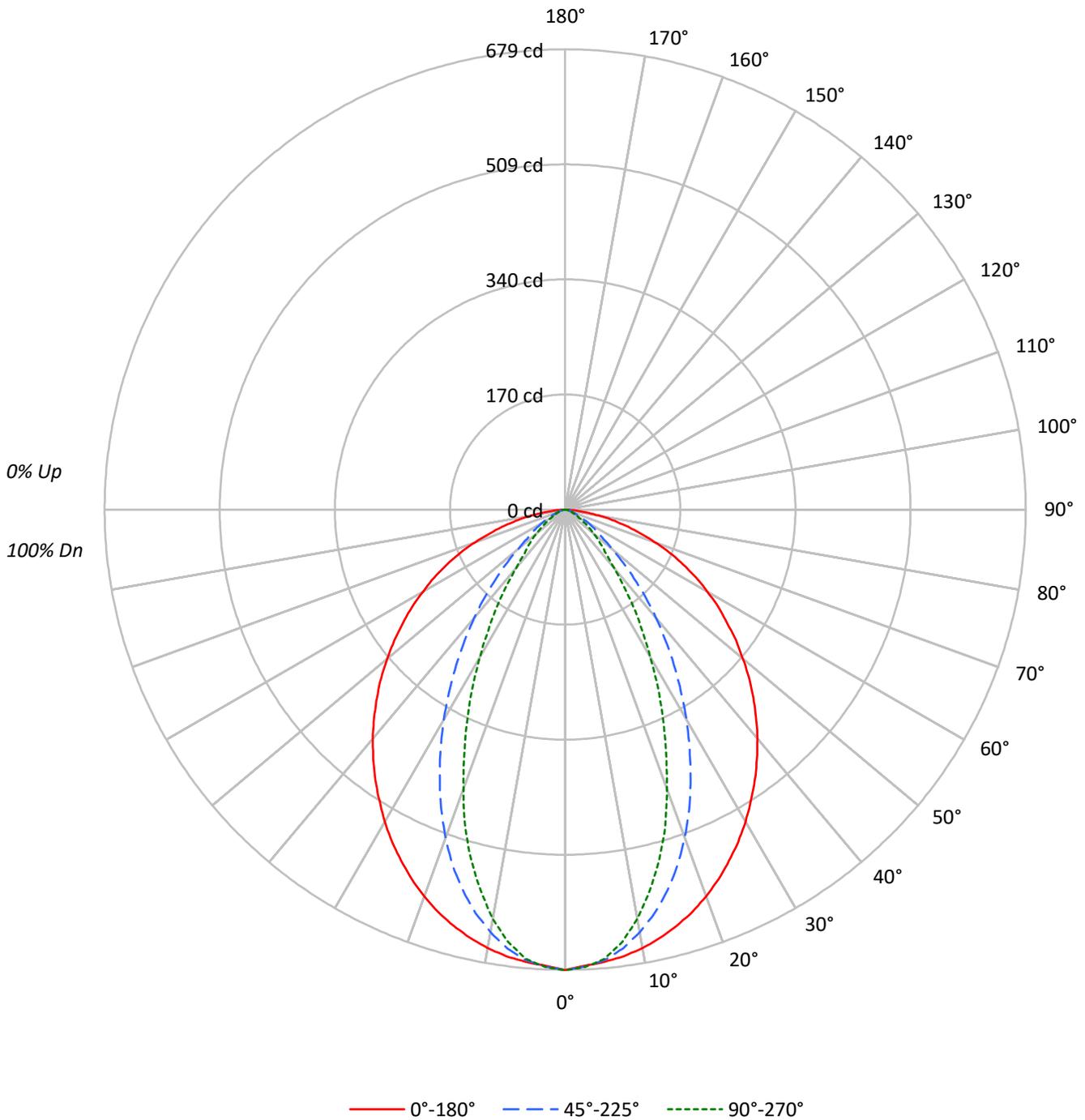
Lumens per Lamp: N/A
Luminaire Lumens: 944.8 lumens
Efficiency: N/A
Efficacy: 49.5 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.77 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
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°	8191	8191	8191
5°	8105	8074	8051
10°	8041	7749	7505
15°	7933	7266	6679
20°	7790	6610	5626
25°	7607	5816	4540
30°	7405	4984	3496
35°	7175	4114	2587
40°	6942	3274	1763
45°	6687	2448	1328
50°	6413	1703	1039
55°	6131	1244	759
60°	5838	931	543
65°	5492	625	422
70°	4970	455	342
75°	4290	331	270
80°	3444	271	222
85°	1784	263	180

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6687 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.8	6.6
10°-20°	163.5	17.3
20°-30°	205.4	21.7
30°-40°	191.3	20.2
40°-50°	146.4	15.5
50°-60°	97.3	10.3
60°-70°	52.5	5.6
70°-80°	21.5	2.3
80°-90°	4.1	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°	431.7	45.7
0°-40°	622.9	65.9
0°-60°	866.7	91.7
0°-90°	944.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	944.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	679	679	679	679	679	
5°	670	677	667	664	665	64
15°	636	625	582	548	535	179
25°	572	533	437	364	341	263
35°	488	415	280	198	176	305
45°	392	290	144	84	78	303
55°	292	169	59	41	36	261
65°	192	65	22	16	15	190
75°	92	16	7	6	6	99
85°	13	2	2	2	1	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	679.4	679.4	679.4	679.4	679.4
2.5°	673.6	681.9	674.9	675.5	675.5
5°	669.7	676.8	667.1	664.5	665.2
7.5°	664.5	669.1	653.0	644.6	643.3
10°	656.8	658.1	633.0	618.2	613.0
12.5°	647.2	642.7	609.8	585.3	575.7
15°	635.6	625.3	582.1	548.0	535.1
17.5°	622.7	605.3	550.6	506.1	490.7
20°	607.2	582.8	515.2	459.8	438.5
22.5°	590.5	558.9	477.8	412.1	388.3
25°	571.8	533.2	437.2	364.5	341.3
27.5°	552.5	505.5	397.3	319.4	295.6
30°	531.9	477.2	358.0	275.6	251.1
32.5°	509.4	446.3	317.5	235.0	210.6
35°	487.5	415.3	279.5	197.7	175.8
37.5°	464.3	384.4	242.8	164.8	140.4
40°	441.1	352.9	208.0	132.7	112.0
42.5°	416.6	321.3	175.2	105.6	89.5
45°	392.2	289.8	143.6	84.4	77.9
47.5°	367.7	258.2	115.9	72.8	66.3
50°	341.9	228.0	90.8	61.8	55.4
52.5°	317.5	197.7	70.8	50.9	45.1
55°	291.7	168.7	59.2	41.2	36.1
57.5°	267.9	139.1	48.9	32.2	28.3
60°	242.1	112.7	38.6	25.1	22.5
62.5°	217.7	88.2	29.6	20.0	18.0
65°	192.5	65.0	21.9	16.1	14.8
67.5°	167.4	47.0	16.7	12.9	12.2
70°	141.0	35.4	12.9	10.3	9.7
72.5°	115.9	25.1	9.7	8.4	7.7
75°	92.1	15.5	7.1	6.4	5.8
77.5°	70.8	9.0	5.2	5.2	4.5
80°	49.6	5.2	3.9	3.9	3.2
82.5°	30.3	3.2	2.6	2.6	2.6
85°	12.9	1.9	1.9	1.9	1.3
87.5°	1.9	0.6	0.6	0.6	0.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)