

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: P1056017

Luminaire Tested: S124R3DR-S350D850-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056017
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S350D850-X4F0-XX-UDD-FLL-S
Description: DEFINE 4, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

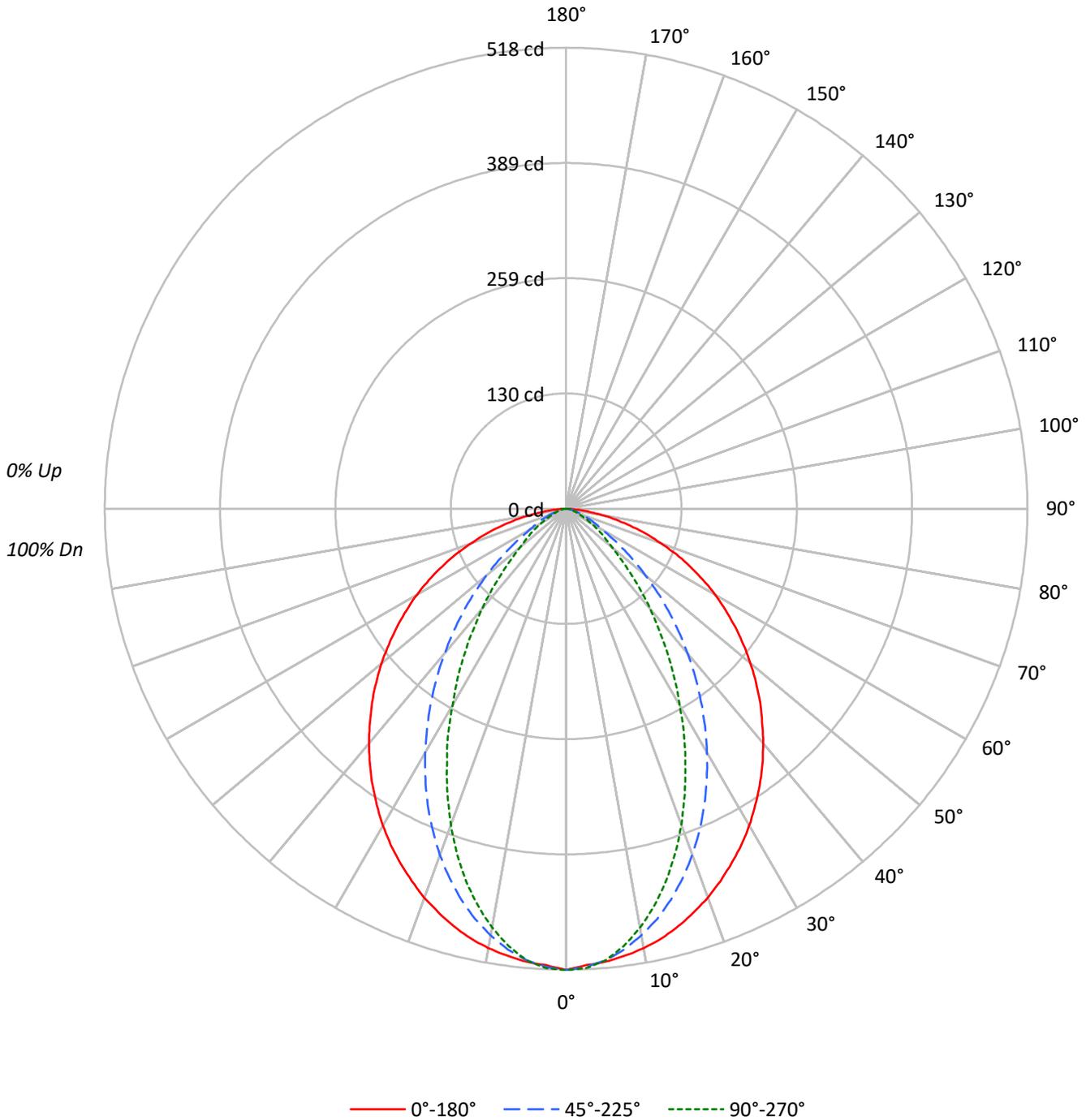
Lumens per Lamp: N/A
Luminaire Lumens: 838.3 lumens
Efficiency: N/A
Efficacy: 66.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.87 / 1.03
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79	78
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	71	66	62	60
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50	48
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37
10	60	48	41	36	59	47	40	36	46	40	36	45	40	35	45	39	35	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4583	4583	4583
5°	4537	4520	4520
10°	4502	4372	4290
15°	4449	4162	3968
20°	4378	3897	3557
25°	4289	3583	3090
30°	4199	3228	2602
35°	4090	2849	2141
40°	3973	2446	1689
45°	3851	2034	1262
50°	3718	1600	923
55°	3572	1182	737
60°	3415	819	564
65°	3211	636	414
70°	2908	450	326
75°	2538	314	246
80°	2042	244	219
85°	1126	193	193

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3851 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.1	5.7
10°-20°	128.5	15.3
20°-30°	171.4	20.4
30°-40°	172.5	20.6
40°-50°	141.5	16.9
50°-60°	96.7	11.5
60°-70°	54.0	6.4
70°-80°	21.4	2.6
80°-90°	4.1	0.5
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°	347.9	41.5
0°-40°	520.5	62.1
0°-60°	758.7	90.5
0°-90°	838.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	838.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	518	518	518	518	518	
5°	511	517	509	507	509	48
15°	486	481	455	439	434	137
25°	440	418	367	330	317	203
35°	379	339	264	214	198	237
45°	308	252	163	114	101	237
55°	232	163	77	51	48	207
65°	154	77	30	22	20	152
75°	74	20	9	8	7	80
85°	11	2	2	2	2	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	518.4	518.4	518.4	518.4	518.4
2.5°	513.6	519.9	515.5	516.0	517.0
5°	511.2	517.0	509.3	506.8	509.3
7.5°	506.8	511.2	499.6	494.8	495.7
10°	501.5	503.0	487.0	478.8	477.9
12.5°	494.8	492.8	472.1	460.0	457.1
15°	486.1	480.8	454.7	438.8	433.5
17.5°	475.9	466.8	435.4	414.6	406.9
20°	465.3	451.8	414.2	387.6	378.0
22.5°	452.8	435.9	391.5	359.1	348.0
25°	439.7	418.0	367.3	330.2	316.7
27.5°	426.2	399.7	342.2	300.7	287.2
30°	411.3	379.9	316.2	271.3	254.9
32.5°	395.3	359.6	290.1	242.3	226.9
35°	378.9	338.9	264.0	213.8	198.4
37.5°	362.0	317.6	238.0	186.8	171.4
40°	344.2	295.9	211.9	161.2	146.3
42.5°	325.8	273.7	186.8	137.1	123.1
45°	308.0	251.5	162.7	114.4	100.9
47.5°	289.1	229.3	139.0	93.2	81.6
50°	270.3	207.1	116.3	74.8	67.1
52.5°	251.0	184.9	95.6	61.3	56.0
55°	231.7	162.7	76.7	51.2	47.8
57.5°	212.4	140.5	59.4	43.4	39.6
60°	193.1	118.7	46.3	35.2	31.9
62.5°	173.3	97.0	38.1	28.0	25.1
65°	153.5	77.2	30.4	21.7	19.8
67.5°	133.7	58.9	23.2	16.9	15.4
70°	112.5	42.0	17.4	13.0	12.6
72.5°	94.1	28.5	12.6	10.1	9.7
75°	74.3	20.3	9.2	7.7	7.2
77.5°	57.4	13.0	6.8	6.3	5.8
80°	40.1	7.2	4.8	4.3	4.3
82.5°	24.6	3.9	3.4	2.9	2.9
85°	11.1	1.9	1.9	1.9	1.9
87.5°	1.9	1.0	1.0	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)