

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: P1056018

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056018
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-7)
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-W
Description: DEFINE 4, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

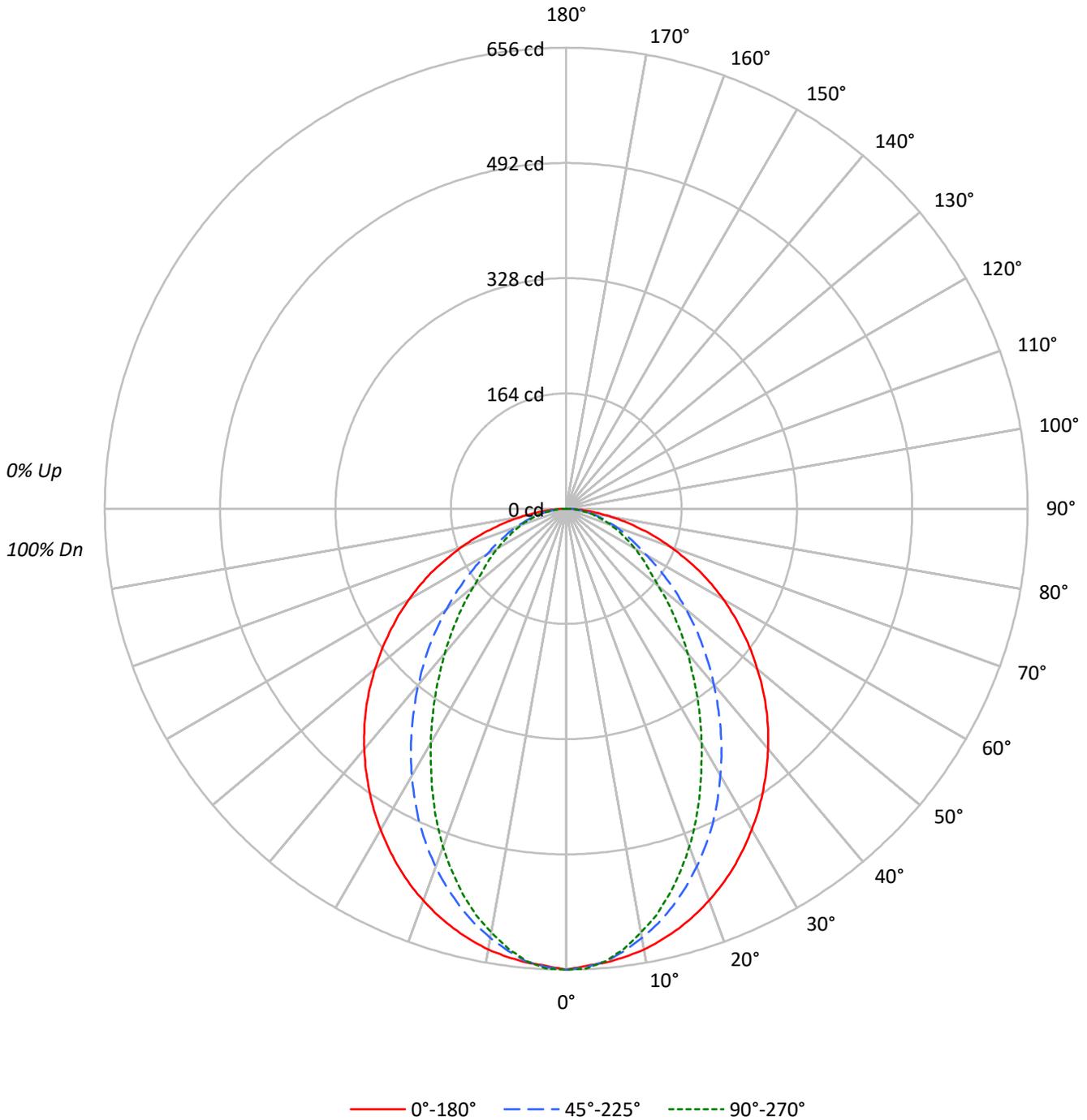
Lumens per Lamp: N/A
Luminaire Lumens: 1306.6 lumens
Efficiency: N/A
Efficacy: 103.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.95 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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									
RC	80									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	110	105	102	98	107	103	100	97	99	96	93	95	93	91	92	90	88	86			86																
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	76	73			73																
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63			63																
4	85	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55			55																
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49			49																
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43			43																
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39			39																
8	64	51	43	38	62	51	43	38	49	42	37	48	42	37	47	41	37	35			35																
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32			32																
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29			29																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5800	5800	5800
5°	5754	5740	5736
10°	5721	5569	5499
15°	5659	5359	5196
20°	5586	5105	4818
25°	5495	4812	4379
30°	5386	4480	3933
35°	5273	4132	3501
40°	5153	3772	3098
45°	5028	3422	2722
50°	4873	3054	2351
55°	4725	2687	2135
60°	4559	2304	1980
65°	4351	2090	1847
70°	4043	1934	1747
75°	3662	1780	1650
80°	3197	1645	1548
85°	2445	1522	1420

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5028 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.1	4.7
10°-20°	165.7	12.7
20°-30°	229.4	17.6
30°-40°	246.2	18.8
40°-50°	223.9	17.1
50°-60°	176.3	13.5
60°-70°	120.7	9.2
70°-80°	65.0	5.0
80°-90°	18.4	1.4
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°	456.1	34.9
0°-40°	702.3	53.8
0°-60°	1102.5	84.4
0°-90°	1306.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1306.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	656	656	656	656	656	
5°	648	656	647	643	646	62
15°	618	612	586	570	568	174
25°	563	540	493	458	449	259
35°	488	450	383	336	324	306
45°	402	351	274	226	218	310
55°	306	248	174	140	138	274
65°	208	149	100	89	88	205
75°	107	65	52	48	48	114
85°	24	16	15	14	14	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	656.0	656.0	656.0	656.0	656.0
2.5°	651.2	658.9	653.1	654.1	655.0
5°	648.3	655.5	646.8	643.4	646.3
7.5°	643.4	648.3	634.8	628.5	631.4
10°	637.2	638.1	620.3	611.1	612.5
12.5°	628.5	626.1	604.3	591.3	592.3
15°	618.3	611.6	585.5	569.6	567.7
17.5°	606.8	595.7	564.8	544.5	540.6
20°	593.7	578.8	542.6	516.5	512.1
22.5°	579.2	559.9	518.4	487.5	481.3
25°	563.3	540.1	493.3	457.6	448.9
27.5°	545.9	518.9	466.3	427.2	416.1
30°	527.6	496.7	438.8	396.8	385.2
32.5°	508.8	474.0	410.8	366.4	354.3
35°	488.5	450.4	382.8	336.4	324.4
37.5°	467.7	425.7	354.3	307.5	294.9
40°	446.5	401.1	326.8	278.5	268.4
42.5°	424.8	376.0	299.8	251.5	242.3
45°	402.1	350.9	273.7	226.4	217.7
47.5°	378.9	325.3	247.1	202.7	194.5
50°	354.3	299.8	222.0	179.6	170.9
52.5°	330.7	273.7	197.9	156.9	152.5
55°	306.5	248.1	174.3	140.5	138.5
57.5°	282.4	222.5	152.5	127.4	125.5
60°	257.8	197.4	130.3	113.9	112.0
62.5°	233.1	172.8	113.9	100.9	99.9
65°	208.0	148.7	99.9	88.8	88.3
67.5°	181.5	125.5	87.4	78.2	77.7
70°	156.4	102.3	74.8	67.6	67.6
72.5°	132.7	81.1	63.2	57.4	57.4
75°	107.2	65.2	52.1	47.8	48.3
77.5°	84.5	51.2	42.0	39.1	39.1
80°	62.8	38.1	32.3	29.9	30.4
82.5°	42.5	26.5	23.2	21.7	21.7
85°	24.1	16.4	15.0	14.0	14.0
87.5°	8.7	7.7	7.2	6.3	6.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)