

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: P1056016

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056016
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-8)
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-B
Description: DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

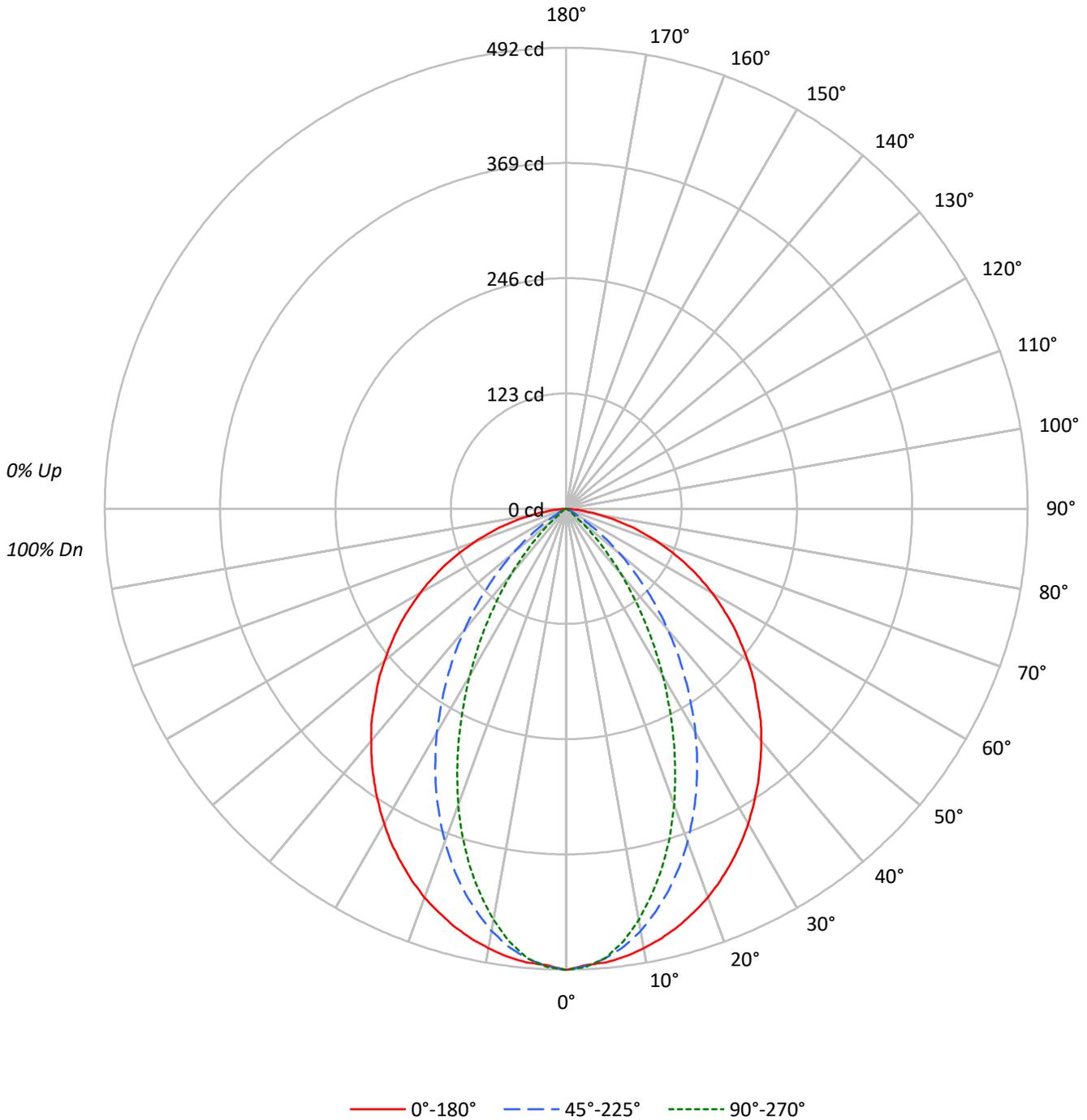
Lumens per Lamp: N/A
Luminaire Lumens: 688.2 lumens
Efficiency: N/A
Efficacy: 54.6 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1056016

CATALOG NUMBER: S124R3DR-S350D850-X4F0-XX-UDD-FLL-B

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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	65	64
5	84	74	66	61	83	73	66	61	71	65	60	69	64	60	67	63	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	54	52
7	74	63	55	50	73	62	55	50	60	54	50	59	53	49	58	53	49	47
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43
9	66	54	47	42	64	53	47	42	52	46	42	51	46	42	50	45	41	40
10	62	50	43	39	61	50	43	39	49	43	39	48	42	39	47	42	38	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4353	4353	4353
5°	4314	4275	4272
10°	4277	4108	4000
15°	4224	3862	3623
20°	4156	3560	3165
25°	4064	3207	2642
30°	3962	2814	2099
35°	3850	2386	1563
40°	3733	1945	1042
45°	3604	1484	574
50°	3479	1016	160
55°	3340	550	105
60°	3176	172	60
65°	2969	111	29
70°	2683	49	13
75°	2309	17	0
80°	1746	0	0
85°	730	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3604 cd/sqm



TEST NUMBER: P1056016

CATALOG NUMBER: S124R3DR-S350D850-X4F0-XX-UDD-FLL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.4	6.6
10°-20°	119.2	17.3
20°-30°	154.1	22.4
30°-40°	147.3	21.4
40°-50°	110.1	16.0
50°-60°	65.6	9.5
60°-70°	33.3	4.8
70°-80°	11.6	1.7
80°-90°	1.6	0.2
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°	318.8	46.3
0°-40°	466.0	67.7
0°-60°	641.7	93.3
0°-90°	688.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	688.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	492	492	492	492	492	
5°	486	490	482	479	481	46
15°	462	452	422	402	396	130
25°	417	388	329	285	271	192
35°	357	308	221	165	145	223
45°	288	221	119	63	46	223
55°	217	135	36	8	7	193
65°	142	54	5	2	1	140
75°	68	7	0	0	0	72
85°	7	0	0	0	0	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	492.4	492.4	492.4	492.4	492.4
2.5°	487.5	493.3	488.5	489.0	489.5
5°	486.1	489.9	481.7	479.3	481.3
7.5°	482.2	483.7	471.6	465.3	465.8
10°	476.4	475.0	457.6	447.0	445.5
12.5°	469.7	464.8	440.7	425.3	421.9
15°	461.5	451.8	421.9	402.1	395.8
17.5°	451.8	437.8	401.1	375.1	367.3
20°	441.7	422.4	378.4	346.1	336.4
22.5°	429.6	405.0	353.8	315.7	303.6
25°	416.6	387.6	328.7	285.3	270.8
27.5°	403.1	368.8	302.2	254.4	237.5
30°	388.1	349.0	275.6	223.0	205.6
32.5°	372.6	328.7	248.1	194.0	174.7
35°	356.7	307.5	221.1	164.6	144.8
37.5°	340.3	286.2	195.0	136.6	116.3
40°	323.4	264.5	168.5	110.1	90.3
42.5°	307.0	242.8	143.4	85.0	66.6
45°	288.2	221.1	118.7	63.2	45.9
47.5°	271.3	199.8	95.1	43.0	27.0
50°	252.9	177.2	73.9	25.1	11.6
52.5°	234.6	155.9	54.1	11.1	8.7
55°	216.7	134.7	35.7	8.2	6.8
57.5°	197.9	113.4	19.3	6.3	4.8
60°	179.6	92.7	9.7	4.8	3.4
62.5°	160.7	72.9	7.7	2.9	1.9
65°	141.9	54.5	5.3	1.9	1.4
67.5°	123.1	37.2	3.4	1.0	0.5
70°	103.8	22.7	1.9	0.5	0.5
72.5°	85.4	11.6	1.0	0.5	0.5
75°	67.6	7.2	0.5	0.5	0.0
77.5°	50.2	3.9	0.5	0.5	0.0
80°	34.3	1.4	0.0	0.0	0.0
82.5°	19.8	0.5	0.0	0.0	0.0
85°	7.2	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)