

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: P1056028

Luminaire Tested: S124R3DR-S350D940-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056028
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-S350D940-X4F0-XX-UDD-FLL-B
Description: DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

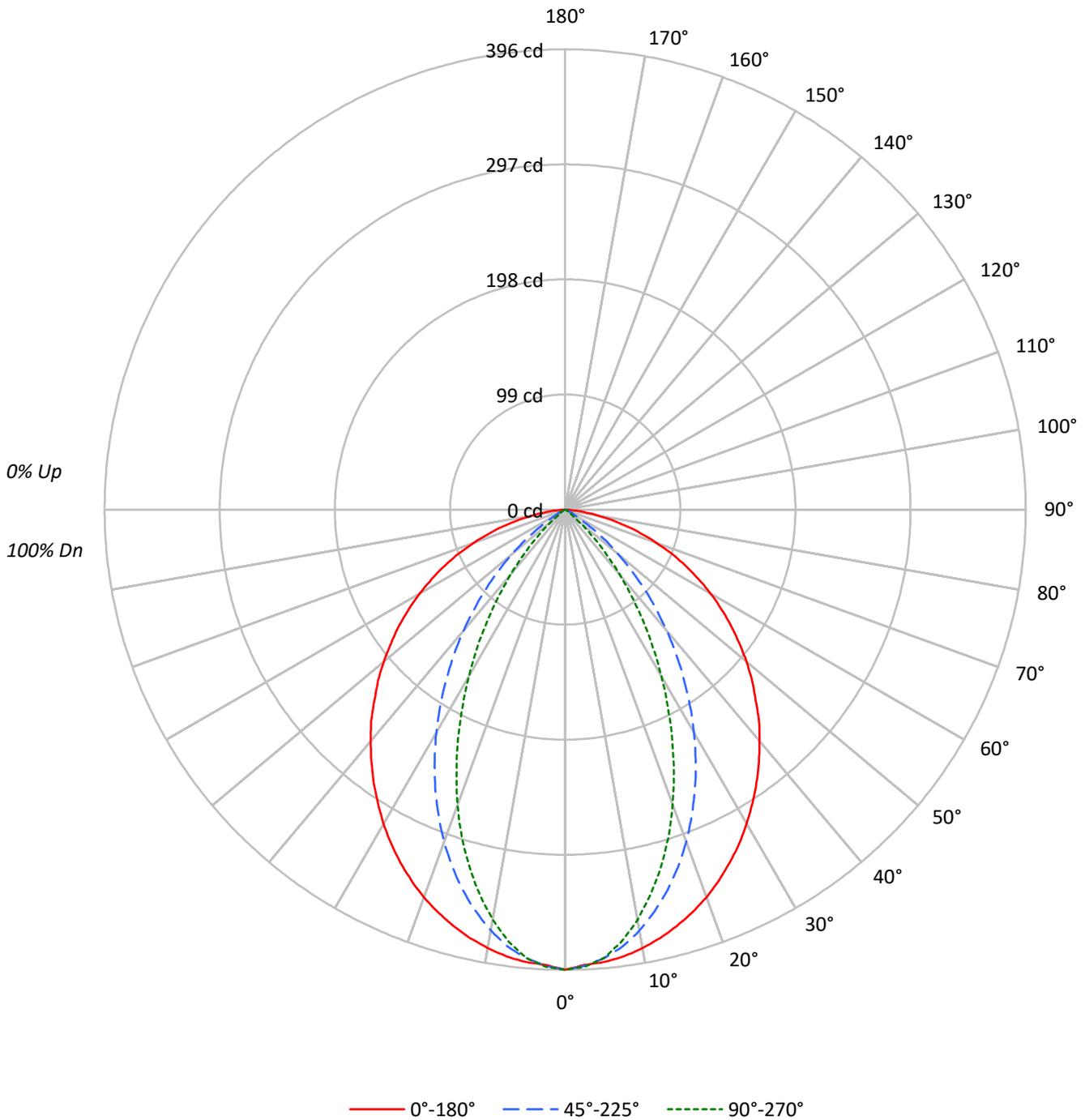
Lumens per Lamp: N/A
Luminaire Lumens: 553.3 lumens
Efficiency: N/A
Efficacy: 43.9 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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

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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	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°	3500	3500	3500
5°	3468	3437	3435
10°	3439	3303	3216
15°	3396	3105	2913
20°	3341	2863	2545
25°	3268	2578	2124
30°	3186	2262	1688
35°	3096	1919	1256
40°	3001	1564	838
45°	2897	1194	461
50°	2798	817	128
55°	2687	442	83
60°	2553	138	48
65°	2387	90	25
70°	2156	41	10
75°	1855	14	0
80°	1405	0	0
85°	588	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2897 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.5	6.6
10°-20°	95.9	17.3
20°-30°	123.9	22.4
30°-40°	118.4	21.4
40°-50°	88.6	16.0
50°-60°	52.7	9.5
60°-70°	26.8	4.8
70°-80°	9.3	1.7
80°-90°	1.3	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°	256.3	46.3
0°-40°	374.7	67.7
0°-60°	516.0	93.2
0°-90°	553.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	553.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	396	396	396	396	396	
5°	391	394	387	385	387	37
15°	371	363	339	323	318	105
25°	335	312	264	229	218	154
35°	287	247	178	132	116	179
45°	232	178	96	51	37	179
55°	174	108	29	7	5	156
65°	114	44	4	2	1	113
75°	54	6	0	0	0	58
85°	6	0	0	0	0	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	395.9	395.9	395.9	395.9	395.9
2.5°	392.0	396.7	392.8	393.2	393.6
5°	390.8	393.9	387.3	385.4	387.0
7.5°	387.7	388.9	379.2	374.2	374.5
10°	383.1	381.9	367.9	359.4	358.2
12.5°	377.6	373.8	354.4	341.9	339.2
15°	371.0	363.3	339.2	323.3	318.3
17.5°	363.3	352.0	322.5	301.6	295.4
20°	355.1	339.6	304.3	278.3	270.5
22.5°	345.4	325.6	284.5	253.8	244.1
25°	335.0	311.7	264.3	229.4	217.7
27.5°	324.1	296.5	243.0	204.5	191.0
30°	312.1	280.6	221.6	179.3	165.3
32.5°	299.6	264.3	199.5	156.0	140.5
35°	286.8	247.2	177.8	132.4	116.4
37.5°	273.6	230.2	156.8	109.8	93.5
40°	260.0	212.7	135.5	88.5	72.6
42.5°	246.8	195.2	115.3	68.3	53.6
45°	231.7	177.8	95.5	50.8	36.9
47.5°	218.1	160.7	76.5	34.5	21.7
50°	203.4	142.4	59.4	20.2	9.3
52.5°	188.6	125.4	43.5	8.9	7.0
55°	174.3	108.3	28.7	6.6	5.4
57.5°	159.1	91.2	15.5	5.0	3.9
60°	144.4	74.5	7.8	3.9	2.7
62.5°	129.2	58.6	6.2	2.3	1.6
65°	114.1	43.9	4.3	1.6	1.2
67.5°	99.0	29.9	2.7	0.8	0.4
70°	83.4	18.2	1.6	0.4	0.4
72.5°	68.7	9.3	0.8	0.4	0.4
75°	54.3	5.8	0.4	0.4	0.0
77.5°	40.4	3.1	0.4	0.4	0.0
80°	27.6	1.2	0.0	0.0	0.0
82.5°	15.9	0.4	0.0	0.0	0.0
85°	5.8	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)