

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: P1056014

Luminaire Tested: S124R3DR-S350D840-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056014
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-S350D840-X4F0-XX-UDD-FLL-S
Description: DEFINE 4, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

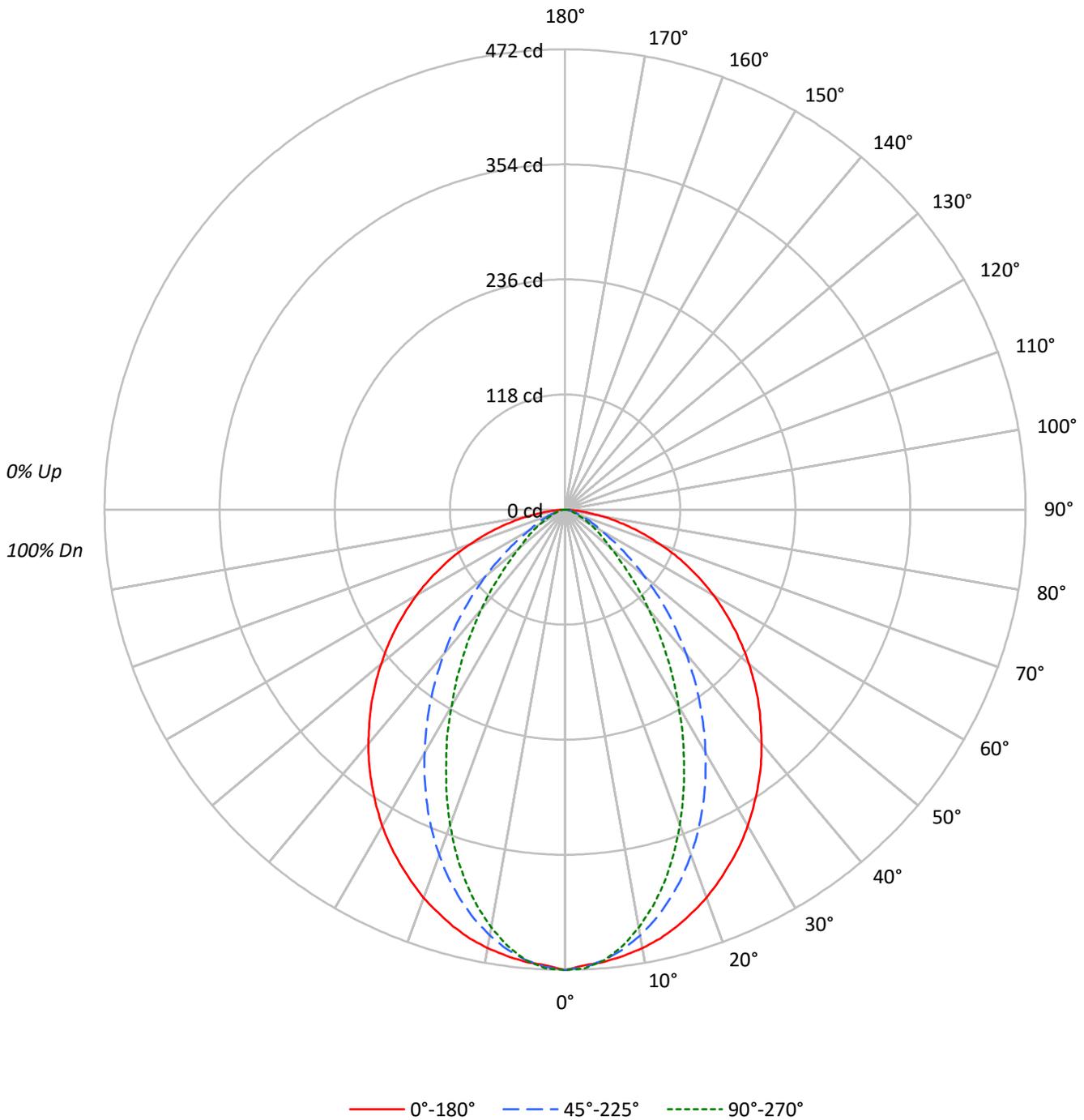
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 763.3 lumens
Efficiency: N/A
Efficacy: 60.6 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	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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89			89	
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79	78			78	
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68			68	
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	71	66	62	60			60	
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54			54	
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50	48			48	
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44			44	
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40			40	
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37			37	
10	60	48	41	36	59	47	40	36	46	40	36	45	40	35	45	39	35	34			34	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4174	4174	4174
5°	4131	4115	4115
10°	4100	3982	3907
15°	4051	3790	3613
20°	3987	3548	3239
25°	3906	3263	2812
30°	3823	2939	2370
35°	3724	2595	1950
40°	3617	2228	1537
45°	3506	1852	1149
50°	3385	1457	840
55°	3252	1077	671
60°	3109	746	513
65°	2925	579	377
70°	2647	408	295
75°	2313	287	225
80°	1858	224	204
85°	1025	183	183

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3506 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.8	5.7
10°-20°	117.0	15.3
20°-30°	156.0	20.4
30°-40°	157.1	20.6
40°-50°	128.8	16.9
50°-60°	88.1	11.5
60°-70°	49.2	6.4
70°-80°	19.5	2.6
80°-90°	3.7	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°	316.8	41.5
0°-40°	474.0	62.1
0°-60°	690.9	90.5
0°-90°	763.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	763.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	472	472	472	472	472	
5°	466	471	464	462	464	44
15°	443	438	414	400	395	125
25°	400	381	334	301	288	184
35°	345	309	240	195	181	216
45°	280	229	148	104	92	216
55°	211	148	70	47	44	189
65°	140	70	28	20	18	138
75°	68	18	8	7	7	73
85°	10	2	2	2	2	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	472.1	472.1	472.1	472.1	472.1
2.5°	467.7	473.4	469.4	469.9	470.8
5°	465.5	470.8	463.7	461.5	463.7
7.5°	461.5	465.5	454.9	450.5	451.4
10°	456.7	458.0	443.5	436.0	435.2
12.5°	450.5	448.8	429.9	418.9	416.3
15°	442.6	437.8	414.1	399.6	394.7
17.5°	433.4	425.0	396.5	377.6	370.5
20°	423.7	411.4	377.1	353.0	344.2
22.5°	412.3	396.9	356.5	327.0	316.9
25°	400.4	380.7	334.5	300.7	288.3
27.5°	388.1	363.9	311.6	273.8	261.5
30°	374.5	345.9	287.9	247.0	232.1
32.5°	360.0	327.5	264.2	220.7	206.6
35°	345.0	308.6	240.4	194.7	180.7
37.5°	329.7	289.2	216.7	170.1	156.0
40°	313.4	269.4	193.0	146.8	133.2
42.5°	296.7	249.2	170.1	124.8	112.1
45°	280.4	229.0	148.1	104.2	91.9
47.5°	263.3	208.8	126.6	84.8	74.3
50°	246.1	188.6	105.9	68.1	61.1
52.5°	228.6	168.3	87.0	55.8	51.0
55°	211.0	148.1	69.9	46.6	43.5
57.5°	193.4	127.9	54.1	39.6	36.0
60°	175.8	108.1	42.2	32.1	29.0
62.5°	157.8	88.4	34.7	25.5	22.9
65°	139.8	70.3	27.7	19.8	18.0
67.5°	121.8	53.6	21.1	15.4	14.1
70°	102.4	38.2	15.8	11.9	11.4
72.5°	85.7	25.9	11.4	9.2	8.8
75°	67.7	18.5	8.4	7.0	6.6
77.5°	52.3	11.9	6.2	5.7	5.3
80°	36.5	6.6	4.4	4.0	4.0
82.5°	22.4	3.5	3.1	2.6	2.6
85°	10.1	1.8	1.8	1.8	1.8
87.5°	1.8	0.9	0.9	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)