

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: P1056023

Luminaire Tested: S124R3DR-S350D930-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056023
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-S350D930-X4F0-XX-UDD-FLL-S
Description: DEFINE 4, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

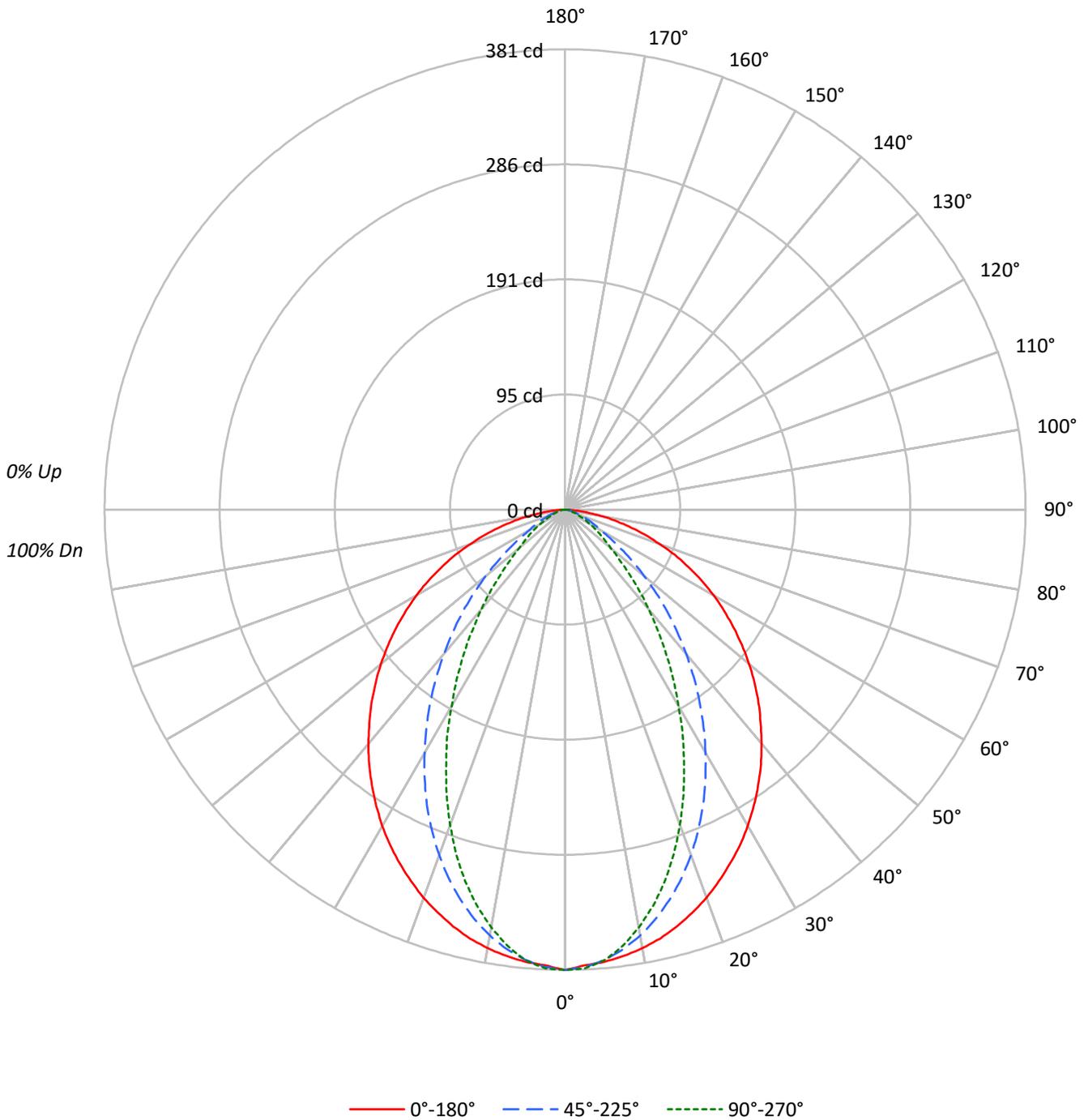
Lumens per Lamp: N/A
Luminaire Lumens: 616.2 lumens
Efficiency: N/A
Efficacy: 48.9 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.87 / 1.03
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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°	3369	3369	3369
5°	3335	3323	3323
10°	3310	3215	3154
15°	3270	3060	2917
20°	3219	2865	2615
25°	3154	2635	2271
30°	3086	2373	1913
35°	3007	2095	1574
40°	2920	1798	1241
45°	2831	1495	928
50°	2733	1176	678
55°	2625	869	541
60°	2509	603	414
65°	2360	469	303
70°	2138	331	238
75°	1865	229	181
80°	1502	178	163
85°	832	142	142

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2831 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.4	5.7
10°-20°	94.5	15.3
20°-30°	126.0	20.4
30°-40°	126.8	20.6
40°-50°	104.0	16.9
50°-60°	71.1	11.5
60°-70°	39.7	6.4
70°-80°	15.8	2.6
80°-90°	3.0	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°	255.8	41.5
0°-40°	382.6	62.1
0°-60°	557.8	90.5
0°-90°	616.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	616.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	381	381	381	381	381	
5°	376	380	374	373	374	36
15°	357	353	334	323	319	101
25°	323	307	270	243	233	149
35°	279	249	194	157	146	174
45°	226	185	120	84	74	175
55°	170	120	56	38	35	152
65°	113	57	22	16	14	111
75°	55	15	7	6	5	59
85°	8	1	1	1	1	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	381.1	381.1	381.1	381.1	381.1
2.5°	377.6	382.2	379.0	379.4	380.1
5°	375.8	380.1	374.4	372.6	374.4
7.5°	372.6	375.8	367.3	363.7	364.4
10°	368.7	369.8	358.1	352.0	351.3
12.5°	363.7	362.3	347.1	338.2	336.1
15°	357.3	353.4	334.3	322.6	318.7
17.5°	349.9	343.2	320.1	304.8	299.2
20°	342.1	332.2	304.5	285.0	277.9
22.5°	332.9	320.4	287.8	264.0	255.9
25°	323.3	307.3	270.1	242.7	232.8
27.5°	313.3	293.8	251.6	221.1	211.1
30°	302.3	279.3	232.4	199.4	187.4
32.5°	290.6	264.4	213.3	178.1	166.8
35°	278.6	249.1	194.1	157.2	145.8
37.5°	266.1	233.5	174.9	137.3	126.0
40°	253.0	217.5	155.8	118.5	107.5
42.5°	239.5	201.2	137.3	100.8	90.5
45°	226.4	184.9	119.6	84.1	74.2
47.5°	212.6	168.6	102.2	68.5	60.0
50°	198.7	152.2	85.5	55.0	49.3
52.5°	184.5	135.9	70.3	45.1	41.2
55°	170.3	119.6	56.4	37.6	35.1
57.5°	156.1	103.3	43.6	31.9	29.1
60°	141.9	87.3	34.1	25.9	23.4
62.5°	127.4	71.3	28.0	20.6	18.5
65°	112.8	56.8	22.4	16.0	14.5
67.5°	98.3	43.3	17.0	12.4	11.4
70°	82.7	30.9	12.8	9.6	9.2
72.5°	69.2	20.9	9.2	7.5	7.1
75°	54.6	14.9	6.7	5.7	5.3
77.5°	42.2	9.6	5.0	4.6	4.3
80°	29.5	5.3	3.5	3.2	3.2
82.5°	18.1	2.8	2.5	2.1	2.1
85°	8.2	1.4	1.4	1.4	1.4
87.5°	1.4	0.7	0.7	0.7	0.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)