

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: P1056019

Luminaire Tested: S124R3DR-S350D927-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056019
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-S350D927-X4F0-XX-UDD-FLL-B
Description: DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

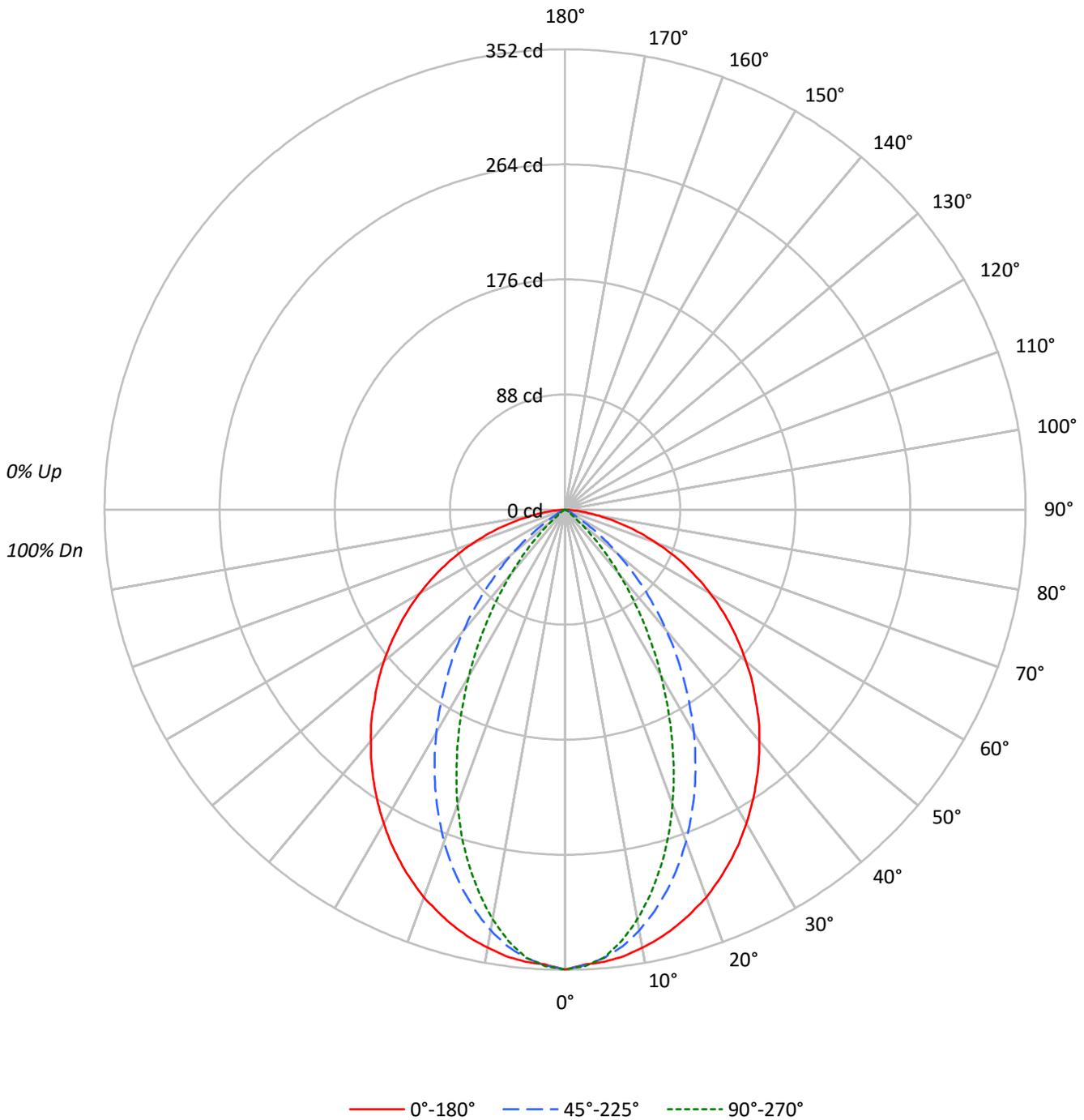
Lumens per Lamp: N/A
Luminaire Lumens: 491.5 lumens
Efficiency: N/A
Efficacy: 39.0 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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	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°	3110	3110	3110
5°	3081	3054	3051
10°	3055	2935	2858
15°	3017	2759	2588
20°	2968	2543	2261
25°	2903	2291	1887
30°	2830	2010	1500
35°	2750	1704	1116
40°	2666	1388	744
45°	2573	1060	410
50°	2485	726	114
55°	2386	393	74
60°	2269	122	42
65°	2121	79	21
70°	1916	36	8
75°	1650	10	0
80°	1247	0	0
85°	528	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2573 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.4	6.6
10°-20°	85.2	17.3
20°-30°	110.1	22.4
30°-40°	105.2	21.4
40°-50°	78.7	16.0
50°-60°	46.8	9.5
60°-70°	23.8	4.8
70°-80°	8.3	1.7
80°-90°	1.1	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°	227.7	46.3
0°-40°	332.9	67.7
0°-60°	458.4	93.3
0°-90°	491.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	491.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	352	352	352	352	352	
5°	347	350	344	342	344	33
15°	330	323	301	287	283	93
25°	298	277	235	204	193	137
35°	255	220	158	118	103	159
45°	206	158	85	45	33	159
55°	155	96	26	6	5	138
65°	101	39	4	1	1	100
75°	48	5	0	0	0	51
85°	5	0	0	0	0	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	351.7	351.7	351.7	351.7	351.7
2.5°	348.3	352.4	348.9	349.3	349.6
5°	347.2	350.0	344.1	342.4	343.8
7.5°	344.5	345.5	336.9	332.4	332.7
10°	340.3	339.3	326.9	319.3	318.3
12.5°	335.5	332.0	314.8	303.8	301.4
15°	329.6	322.7	301.4	287.2	282.7
17.5°	322.7	312.7	286.5	267.9	262.4
20°	315.5	301.7	270.3	247.2	240.3
22.5°	306.9	289.3	252.7	225.5	216.9
25°	297.6	276.9	234.8	203.8	193.4
27.5°	287.9	263.4	215.8	181.7	169.6
30°	277.2	249.3	196.9	159.3	146.9
32.5°	266.2	234.8	177.2	138.6	124.8
35°	254.8	219.6	157.9	117.6	103.4
37.5°	243.1	204.5	139.3	97.6	83.1
40°	231.0	189.0	120.3	78.6	64.5
42.5°	219.3	173.4	102.4	60.7	47.6
45°	205.8	157.9	84.8	45.2	32.8
47.5°	193.8	142.7	67.9	30.7	19.3
50°	180.7	126.5	52.8	17.9	8.3
52.5°	167.6	111.4	38.6	7.9	6.2
55°	154.8	96.2	25.5	5.9	4.8
57.5°	141.4	81.0	13.8	4.5	3.4
60°	128.3	66.2	6.9	3.4	2.4
62.5°	114.8	52.1	5.5	2.1	1.4
65°	101.4	39.0	3.8	1.4	1.0
67.5°	87.9	26.5	2.4	0.7	0.3
70°	74.1	16.2	1.4	0.3	0.3
72.5°	61.0	8.3	0.7	0.3	0.3
75°	48.3	5.2	0.3	0.3	0.0
77.5°	35.9	2.8	0.3	0.3	0.0
80°	24.5	1.0	0.0	0.0	0.0
82.5°	14.1	0.3	0.0	0.0	0.0
85°	5.2	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)