

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: P1056032

Luminaire Tested: S124R3DR-S350D950-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056032  
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-S350D950-X4F0-XX-UDD-FLL-S  
Description: DEFINE 4, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

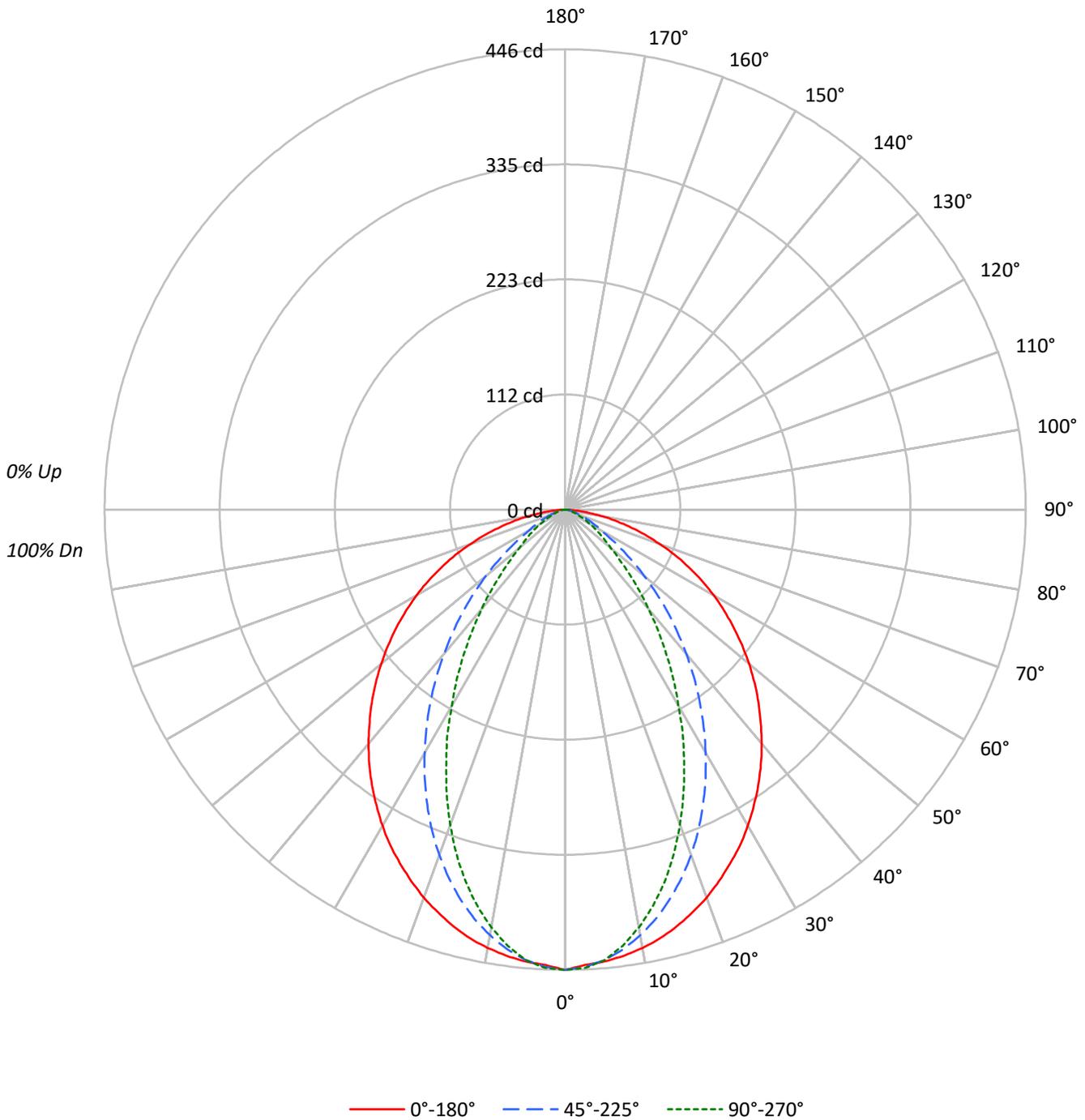
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 721.1 lumens  
Efficiency: N/A  
Efficacy: 57.2 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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79	78
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	71	66	62	60
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50	48
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37
10	60	48	41	36	59	47	40	36	46	40	36	45	40	35	45	39	35	34

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3943	3943	3943
5°	3902	3888	3888
10°	3873	3762	3691
15°	3827	3581	3413
20°	3766	3352	3059
25°	3690	3083	2657
30°	3612	2777	2238
35°	3519	2451	1842
40°	3417	2104	1452
45°	3312	1749	1085
50°	3198	1377	794
55°	3072	1017	634
60°	2937	706	485
65°	2762	548	356
70°	2502	385	279
75°	2183	270	212
80°	1757	214	188
85°	974	172	172

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3312 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.4	5.7
10°-20°	110.5	15.3
20°-30°	147.4	20.4
30°-40°	148.4	20.6
40°-50°	121.7	16.9
50°-60°	83.2	11.5
60°-70°	46.5	6.4
70°-80°	18.4	2.6
80°-90°	3.5	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°	299.3	41.5
0°-40°	447.7	62.1
0°-60°	652.7	90.5
0°-90°	721.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	721.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	446	446	446	446	446	
5°	440	445	438	436	438	42
15°	418	414	391	378	373	118
25°	378	360	316	284	272	174
35°	326	292	227	184	171	204
45°	265	216	140	98	87	204
55°	199	140	66	44	41	178
65°	132	66	26	19	17	130
75°	64	17	8	7	6	69
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°	446.0	446.0	446.0	446.0	446.0
2.5°	441.8	447.2	443.5	443.9	444.7
5°	439.7	444.7	438.1	436.0	438.1
7.5°	436.0	439.7	429.8	425.6	426.4
10°	431.4	432.7	419.0	411.9	411.1
12.5°	425.6	424.0	406.1	395.7	393.2
15°	418.1	413.6	391.2	377.5	372.9
17.5°	409.4	401.5	374.5	356.7	350.0
20°	400.3	388.7	356.3	333.4	325.1
22.5°	389.5	375.0	336.8	308.9	299.4
25°	378.3	359.6	316.0	284.0	272.4
27.5°	366.7	343.8	294.4	258.7	247.1
30°	353.8	326.8	272.0	233.4	219.2
32.5°	340.1	309.4	249.6	208.4	195.2
35°	326.0	291.5	227.1	183.9	170.7
37.5°	311.4	273.2	204.7	160.7	147.4
40°	296.1	254.5	182.3	138.7	125.8
42.5°	280.3	235.4	160.7	117.9	105.9
45°	264.9	216.3	139.9	98.4	86.8
47.5°	248.7	197.2	119.6	80.1	70.2
50°	232.5	178.1	100.1	64.4	57.7
52.5°	215.9	159.0	82.2	52.7	48.2
55°	199.3	139.9	66.0	44.0	41.1
57.5°	182.7	120.8	51.1	37.4	34.0
60°	166.1	102.1	39.9	30.3	27.4
62.5°	149.1	83.5	32.8	24.1	21.6
65°	132.0	66.4	26.2	18.7	17.0
67.5°	115.0	50.7	19.9	14.5	13.3
70°	96.8	36.1	14.9	11.2	10.8
72.5°	81.0	24.5	10.8	8.7	8.3
75°	63.9	17.4	7.9	6.6	6.2
77.5°	49.4	11.2	5.8	5.4	5.0
80°	34.5	6.2	4.2	3.7	3.7
82.5°	21.2	3.3	2.9	2.5	2.5
85°	9.6	1.7	1.7	1.7	1.7
87.5°	1.7	0.8	0.8	0.8	0.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)