

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: P1056031

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

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056031  
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-S350D950-X4F0-XX-UDD-FLL-B  
Description: DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

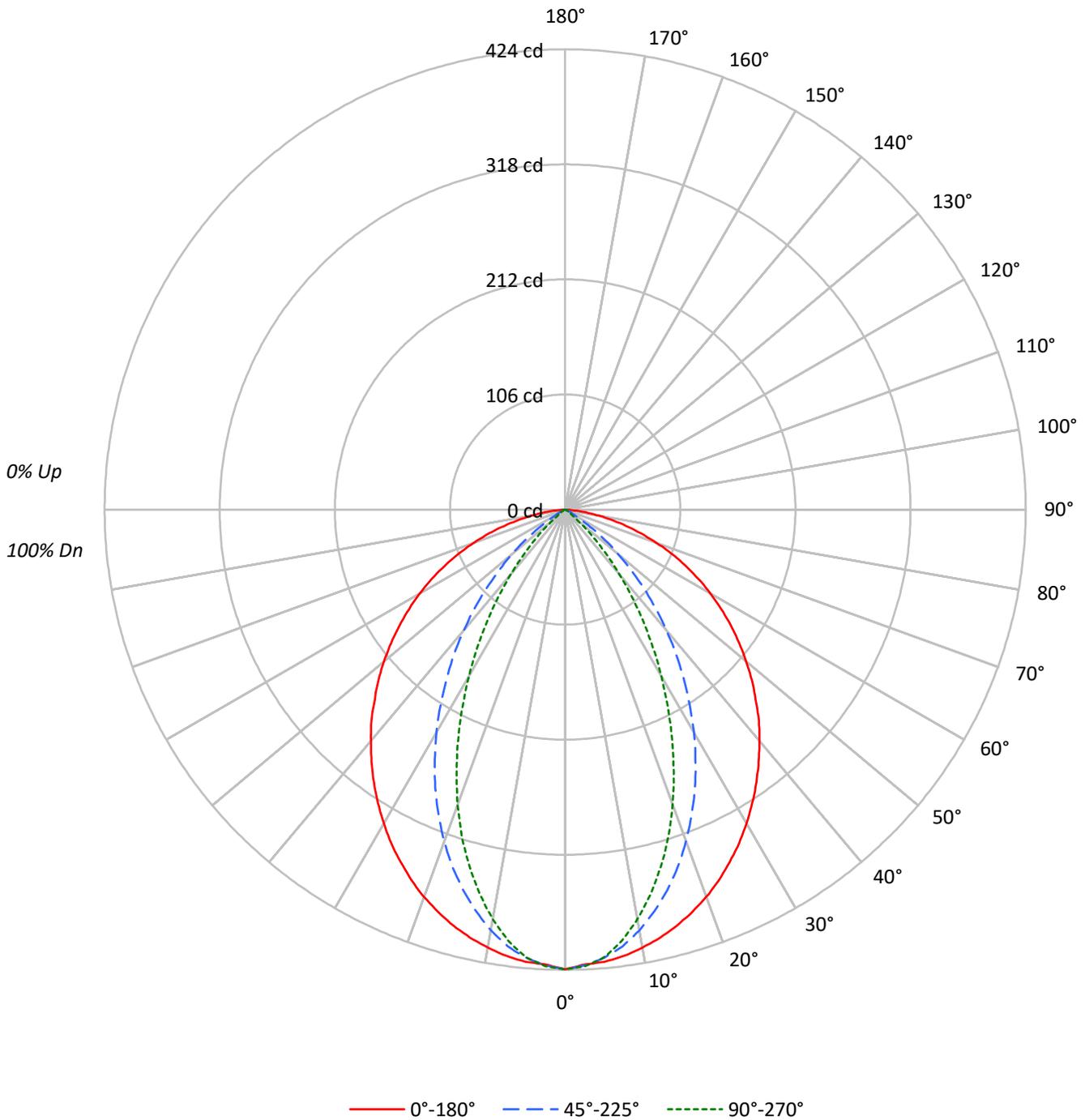
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 592.0 lumens  
Efficiency: N/A  
Efficacy: 47.0 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°	3744	3744	3744
5°	3711	3678	3674
10°	3679	3534	3441
15°	3634	3322	3117
20°	3574	3063	2723
25°	3495	2759	2272
30°	3409	2421	1806
35°	3312	2053	1345
40°	3211	1672	896
45°	3100	1277	493
50°	2993	873	138
55°	2873	473	89
60°	2732	147	51
65°	2554	96	25
70°	2308	44	10
75°	1985	14	0
80°	1502	0	0
85°	629	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3100 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.1	6.6
10°-20°	102.6	17.3
20°-30°	132.5	22.4
30°-40°	126.7	21.4
40°-50°	94.7	16.0
50°-60°	56.4	9.5
60°-70°	28.6	4.8
70°-80°	9.9	1.7
80°-90°	1.4	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°	274.2	46.3
0°-40°	400.9	67.7
0°-60°	552.0	93.3
0°-90°	592.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	592.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	424	424	424	424	424	
5°	418	422	414	412	414	40
15°	397	389	363	346	340	112
25°	358	333	283	245	233	165
35°	307	264	190	142	125	192
45°	248	190	102	54	39	192
55°	186	116	31	7	6	166
65°	122	47	5	2	1	121
75°	58	6	0	0	0	62
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°	423.5	423.5	423.5	423.5	423.5
2.5°	419.4	424.4	420.2	420.6	421.1
5°	418.1	421.5	414.4	412.3	414.0
7.5°	414.8	416.1	405.7	400.3	400.7
10°	409.8	408.6	393.6	384.5	383.3
12.5°	404.0	399.9	379.1	365.8	362.9
15°	397.0	388.7	362.9	345.9	340.5
17.5°	388.7	376.6	345.1	322.6	316.0
20°	379.9	363.3	325.5	297.7	289.4
22.5°	369.6	348.4	304.4	271.6	261.2
25°	358.3	333.4	282.8	245.4	232.9
27.5°	346.7	317.2	259.9	218.8	204.3
30°	333.9	300.2	237.1	191.8	176.9
32.5°	320.6	282.8	213.4	166.9	150.3
35°	306.9	264.5	190.2	141.6	124.6
37.5°	292.7	246.2	167.8	117.5	100.1
40°	278.2	227.5	144.9	94.7	77.6
42.5°	264.1	208.9	123.3	73.1	57.3
45°	247.9	190.2	102.1	54.4	39.4
47.5°	233.4	171.9	81.8	37.0	23.3
50°	217.6	152.4	63.5	21.6	10.0
52.5°	201.8	134.1	46.5	9.6	7.5
55°	186.4	115.9	30.7	7.1	5.8
57.5°	170.2	97.6	16.6	5.4	4.2
60°	154.5	79.7	8.3	4.2	2.9
62.5°	138.3	62.7	6.6	2.5	1.7
65°	122.1	46.9	4.6	1.7	1.2
67.5°	105.9	32.0	2.9	0.8	0.4
70°	89.3	19.5	1.7	0.4	0.4
72.5°	73.5	10.0	0.8	0.4	0.4
75°	58.1	6.2	0.4	0.4	0.0
77.5°	43.2	3.3	0.4	0.4	0.0
80°	29.5	1.2	0.0	0.0	0.0
82.5°	17.0	0.4	0.0	0.0	0.0
85°	6.2	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)