

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: P1056025

Luminaire Tested: S124R3DR-S350D935-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056025  
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-S350D935-X4F0-XX-UDD-FLL-B  
Description: DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

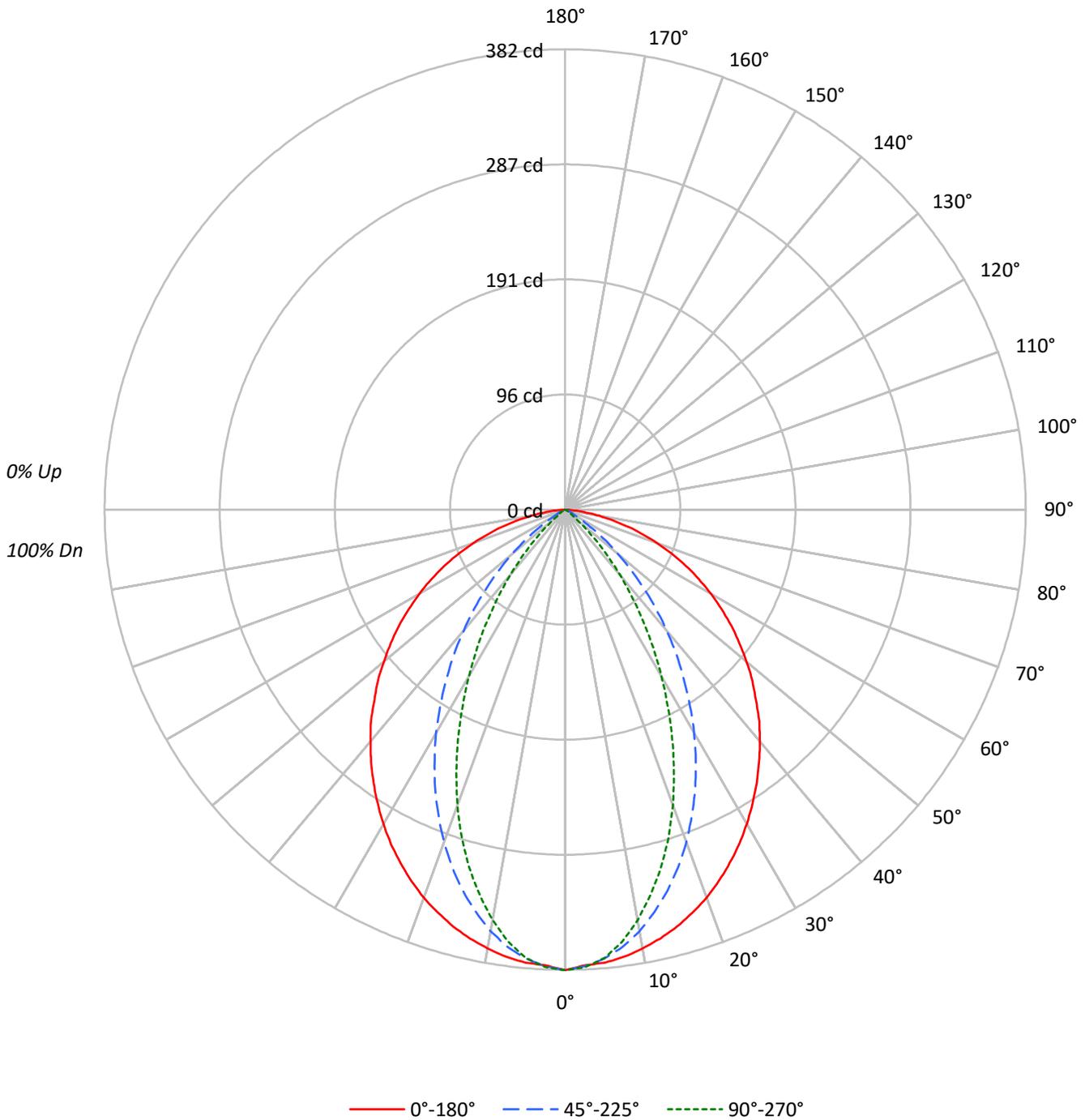
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 534.3 lumens  
Efficiency: N/A  
Efficacy: 42.4 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	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°	3380	3380	3380
5°	3349	3319	3316
10°	3321	3190	3105
15°	3280	2998	2813
20°	3226	2764	2458
25°	3155	2490	2051
30°	3076	2185	1629
35°	2989	1852	1213
40°	2898	1510	809
45°	2797	1153	445
50°	2701	788	124
55°	2594	427	80
60°	2465	133	46
65°	2305	86	23
70°	2084	39	10
75°	1793	14	0
80°	1354	0	0
85°	568	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2797 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.3	6.6
10°-20°	92.6	17.3
20°-30°	119.6	22.4
30°-40°	114.3	21.4
40°-50°	85.5	16.0
50°-60°	50.9	9.5
60°-70°	25.8	4.8
70°-80°	9.0	1.7
80°-90°	1.2	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°	247.5	46.3
0°-40°	361.8	67.7
0°-60°	498.2	93.3
0°-90°	534.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	534.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	382	382	382	382	382	
5°	377	380	374	372	374	36
15°	358	351	328	312	307	101
25°	323	301	255	222	210	149
35°	277	239	172	128	112	173
45°	224	172	92	49	36	173
55°	168	105	28	6	5	150
65°	110	42	4	2	1	109
75°	52	6	0	0	0	56
85°	6	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°	382.3	382.3	382.3	382.3	382.3
2.5°	378.5	383.0	379.3	379.6	380.0
5°	377.4	380.4	374.0	372.1	373.6
7.5°	374.4	375.5	366.1	361.3	361.6
10°	369.9	368.8	355.3	347.0	345.9
12.5°	364.6	360.9	342.2	330.2	327.5
15°	358.3	350.8	327.5	312.2	307.3
17.5°	350.8	339.9	311.4	291.2	285.2
20°	342.9	327.9	293.8	268.7	261.2
22.5°	333.5	314.4	274.7	245.1	235.7
25°	323.4	300.9	255.2	221.5	210.2
27.5°	312.9	286.3	234.6	197.5	184.4
30°	301.3	270.9	214.0	173.1	159.6
32.5°	289.3	255.2	192.6	150.7	135.7
35°	276.9	238.7	171.6	127.8	112.4
37.5°	264.2	222.2	151.4	106.1	90.3
40°	251.1	205.4	130.8	85.4	70.1
42.5°	238.3	188.5	111.3	66.0	51.7
45°	223.7	171.6	92.2	49.1	35.6
47.5°	210.6	155.1	73.8	33.4	21.0
50°	196.4	137.5	57.3	19.5	9.0
52.5°	182.1	121.0	42.0	8.6	6.7
55°	168.3	104.6	27.7	6.4	5.2
57.5°	153.7	88.1	15.0	4.9	3.7
60°	139.4	72.0	7.5	3.7	2.6
62.5°	124.8	56.6	6.0	2.2	1.5
65°	110.2	42.3	4.1	1.5	1.1
67.5°	95.6	28.9	2.6	0.7	0.4
70°	80.6	17.6	1.5	0.4	0.4
72.5°	66.3	9.0	0.7	0.4	0.4
75°	52.5	5.6	0.4	0.4	0.0
77.5°	39.0	3.0	0.4	0.4	0.0
80°	26.6	1.1	0.0	0.0	0.0
82.5°	15.4	0.4	0.0	0.0	0.0
85°	5.6	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)