

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: P1056048

Luminaire Tested: S124R3DR-S575D927-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056048  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124R3DR-S575D927-X4F0-XX-UDD-FLL-W  
Description: DEFINE 4, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

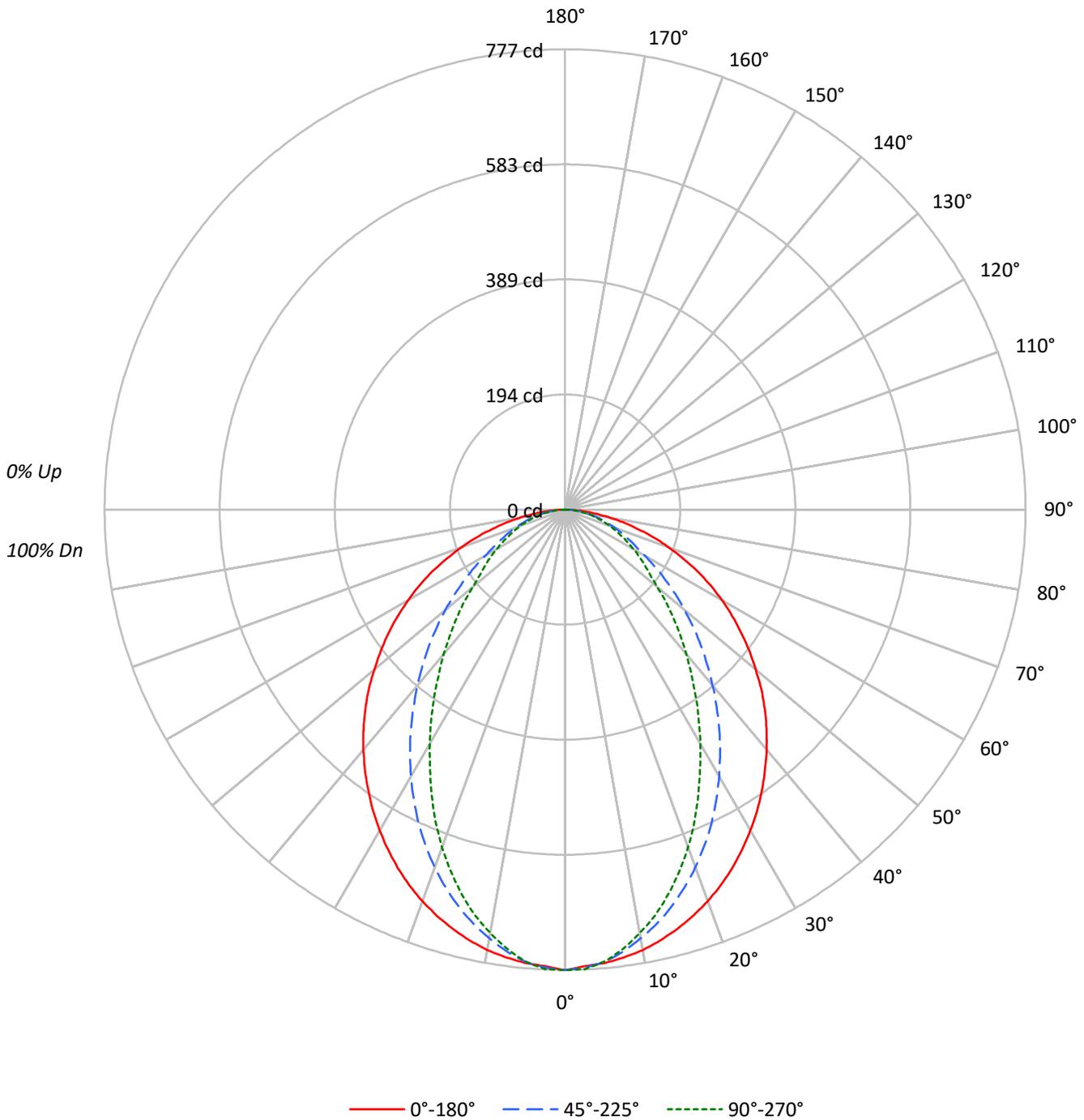
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1548.5 lumens  
Efficiency: N/A  
Efficacy: 81.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.95 / 1.12  
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.1  
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										
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	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	110	105	102	98	107	103	100	97	99	96	93	95	93	91	92	90	88	86																				
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	76	73																				
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63																				
4	85	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55																				
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49																				
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43																				
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39																				
8	64	51	43	38	62	51	43	38	49	42	37	48	42	37	47	41	37	35																				
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32																				
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29																				

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

	0°	45°	90°
0°	6873	6873	6873
5°	6819	6804	6798
10°	6779	6600	6518
15°	6708	6351	6158
20°	6620	6050	5711
25°	6513	5704	5190
30°	6384	5309	4660
35°	6248	4897	4149
40°	6108	4470	3671
45°	5958	4056	3226
50°	5776	3620	2785
55°	5600	3183	2531
60°	5402	2732	2347
65°	5159	2477	2190
70°	4793	2293	2071
75°	4338	2111	1954
80°	3788	1950	1833
85°	2901	1796	1684

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5958 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.4	4.7
10°-20°	196.3	12.7
20°-30°	271.9	17.6
30°-40°	291.8	18.8
40°-50°	265.4	17.1
50°-60°	209.0	13.5
60°-70°	143.0	9.2
70°-80°	77.0	5.0
80°-90°	21.8	1.4
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°	540.6	34.9
0°-40°	832.3	53.8
0°-60°	1306.7	84.4
0°-90°	1548.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1548.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	777	777	777	777	777	
5°	768	777	767	763	766	73
15°	733	725	694	675	673	207
25°	668	640	585	542	532	307
35°	579	534	454	399	384	362
45°	476	416	324	268	258	367
55°	363	294	206	166	164	325
65°	247	176	118	105	105	243
75°	127	77	62	57	57	136
85°	29	20	18	17	17	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	777.4	777.4	777.4	777.4	777.4
2.5°	771.7	780.9	774.0	775.2	776.3
5°	768.3	776.9	766.6	762.6	766.0
7.5°	762.6	768.3	752.3	744.8	748.3
10°	755.1	756.3	735.1	724.2	726.0
12.5°	744.8	742.0	716.2	700.8	701.9
15°	732.8	724.8	693.9	675.0	672.8
17.5°	719.1	705.9	669.3	645.3	640.7
20°	703.6	685.9	643.0	612.1	607.0
22.5°	686.5	663.6	614.4	577.8	570.4
25°	667.6	640.1	584.7	542.3	532.0
27.5°	647.0	615.0	552.6	506.3	493.1
30°	625.3	588.7	520.0	470.2	456.5
32.5°	603.0	561.8	486.8	434.2	419.9
35°	578.9	533.7	453.7	398.7	384.4
37.5°	554.3	504.6	419.9	364.4	349.5
40°	529.2	475.4	387.3	330.1	318.1
42.5°	503.4	445.6	355.3	298.0	287.2
45°	476.5	415.9	324.4	268.3	258.0
47.5°	449.1	385.6	292.9	240.3	230.5
50°	419.9	355.3	263.2	212.8	202.5
52.5°	391.9	324.4	234.5	185.9	180.8
55°	363.3	294.0	206.5	166.5	164.2
57.5°	334.7	263.7	180.8	151.0	148.7
60°	305.5	234.0	154.5	135.0	132.7
62.5°	276.3	204.8	135.0	119.6	118.4
65°	246.6	176.2	118.4	105.3	104.7
67.5°	215.1	148.7	103.5	92.7	92.1
70°	185.4	121.3	88.7	80.1	80.1
72.5°	157.3	96.1	74.9	68.1	68.1
75°	127.0	77.2	61.8	56.6	57.2
77.5°	100.1	60.6	49.8	46.3	46.3
80°	74.4	45.2	38.3	35.5	36.0
82.5°	50.3	31.5	27.5	25.7	25.7
85°	28.6	19.5	17.7	16.6	16.6
87.5°	10.3	9.2	8.6	7.4	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)