

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: P1055991

Luminaire Tested: S124R3DR-S1195D850-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055991  
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-S1195D850-X4F0-XX-UDD-FLL-W  
Description: DEFINE 4, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

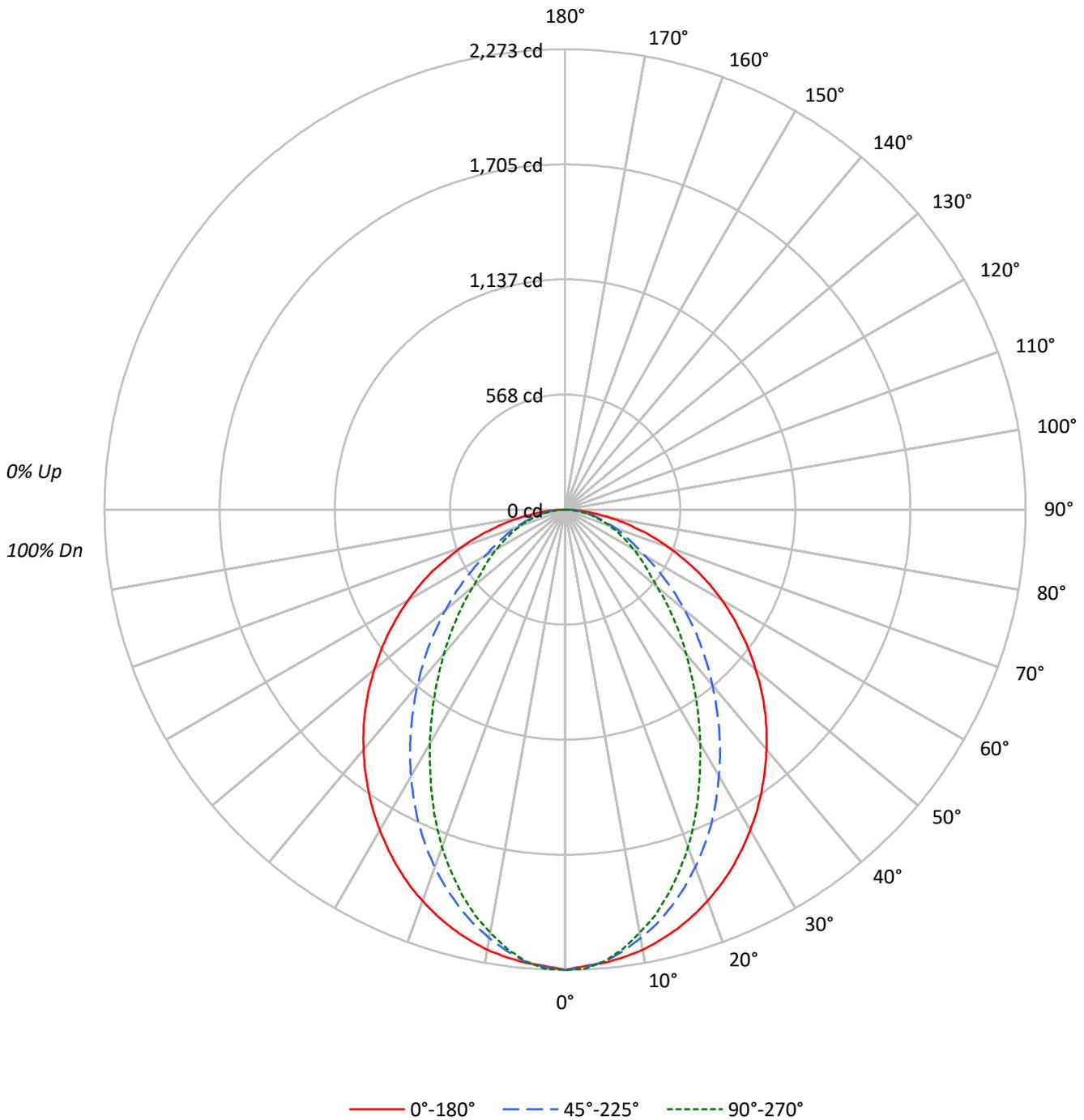
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4527.2 lumens  
Efficiency: N/A  
Efficacy: 108.0 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): 41.9  
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	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°	20096	20096	20096
5°	19935	19891	19876
10°	19821	19295	19055
15°	19611	18570	18004
20°	19356	17688	16697
25°	19042	16675	15174
30°	18663	15521	13626
35°	18269	14315	12132
40°	17856	13069	10733
45°	17420	11857	9431
50°	16885	10583	8144
55°	16372	9307	7399
60°	15792	7986	6861
65°	15082	7243	6404
70°	14008	6700	6054
75°	12684	6169	5715
80°	11069	5708	5366
85°	8481	5255	4920

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 17420 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	211.6	4.7
10°-20°	574.0	12.7
20°-30°	794.8	17.6
30°-40°	853.1	18.8
40°-50°	775.8	17.1
50°-60°	610.9	13.5
60°-70°	418.1	9.2
70°-80°	225.1	5.0
80°-90°	63.7	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°	1580.4	34.9
0°-40°	2433.5	53.8
0°-60°	3820.2	84.4
0°-90°	4527.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4527.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2273	2273	2273	2273	2273	
5°	2246	2271	2241	2230	2240	213
15°	2142	2119	2029	1974	1967	604
25°	1952	1872	1709	1586	1556	899
35°	1693	1560	1326	1166	1124	1059
45°	1393	1216	948	784	754	1074
55°	1062	860	604	487	480	950
65°	721	515	346	308	306	711
75°	371	226	181	166	167	396
85°	84	57	52	48	48	101
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2273.0	2273.0	2273.0	2273.0	2273.0
2.5°	2256.3	2283.0	2263.0	2266.3	2269.6
5°	2246.2	2271.3	2241.2	2229.5	2239.5
7.5°	2229.5	2246.2	2199.4	2177.7	2187.7
10°	2207.8	2211.1	2149.2	2117.4	2122.5
12.5°	2177.7	2169.3	2094.0	2048.9	2052.2
15°	2142.5	2119.1	2028.8	1973.6	1966.9
17.5°	2102.4	2063.9	1956.9	1886.6	1873.3
20°	2057.2	2005.4	1879.9	1789.6	1774.6
22.5°	2007.1	1940.2	1796.3	1689.3	1667.5
25°	1951.9	1871.6	1709.3	1585.6	1555.5
27.5°	1891.6	1798.0	1615.7	1480.2	1441.7
30°	1828.1	1721.0	1520.3	1374.8	1334.7
32.5°	1762.9	1642.4	1423.3	1269.5	1227.6
35°	1692.6	1560.5	1326.3	1165.8	1124.0
37.5°	1620.7	1475.2	1227.6	1065.4	1021.9
40°	1547.1	1389.9	1132.3	965.1	929.9
42.5°	1471.8	1302.9	1038.7	871.4	839.6
45°	1393.2	1215.9	948.3	784.4	754.3
47.5°	1312.9	1127.3	856.3	702.5	674.0
50°	1227.6	1038.7	769.4	622.2	592.1
52.5°	1145.7	948.3	685.7	543.6	528.5
55°	1062.1	859.7	603.8	486.7	480.0
57.5°	978.4	771.0	528.5	441.6	434.9
60°	893.1	684.1	451.6	394.7	388.0
62.5°	807.8	598.8	394.7	349.6	346.2
65°	720.9	515.1	346.2	307.7	306.1
67.5°	628.9	434.9	302.7	271.0	269.3
70°	541.9	354.6	259.2	234.2	234.2
72.5°	459.9	281.0	219.1	199.0	199.0
75°	371.3	225.8	180.6	165.6	167.3
77.5°	292.7	177.3	145.5	135.5	135.5
80°	217.4	132.1	112.1	103.7	105.4
82.5°	147.2	92.0	80.3	75.3	75.3
85°	83.6	56.9	51.8	48.5	48.5
87.5°	30.1	26.8	25.1	21.7	23.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)