

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: P1056072

Luminaire Tested: S124R3DR-S795D850-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056072  
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-S795D850-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: -

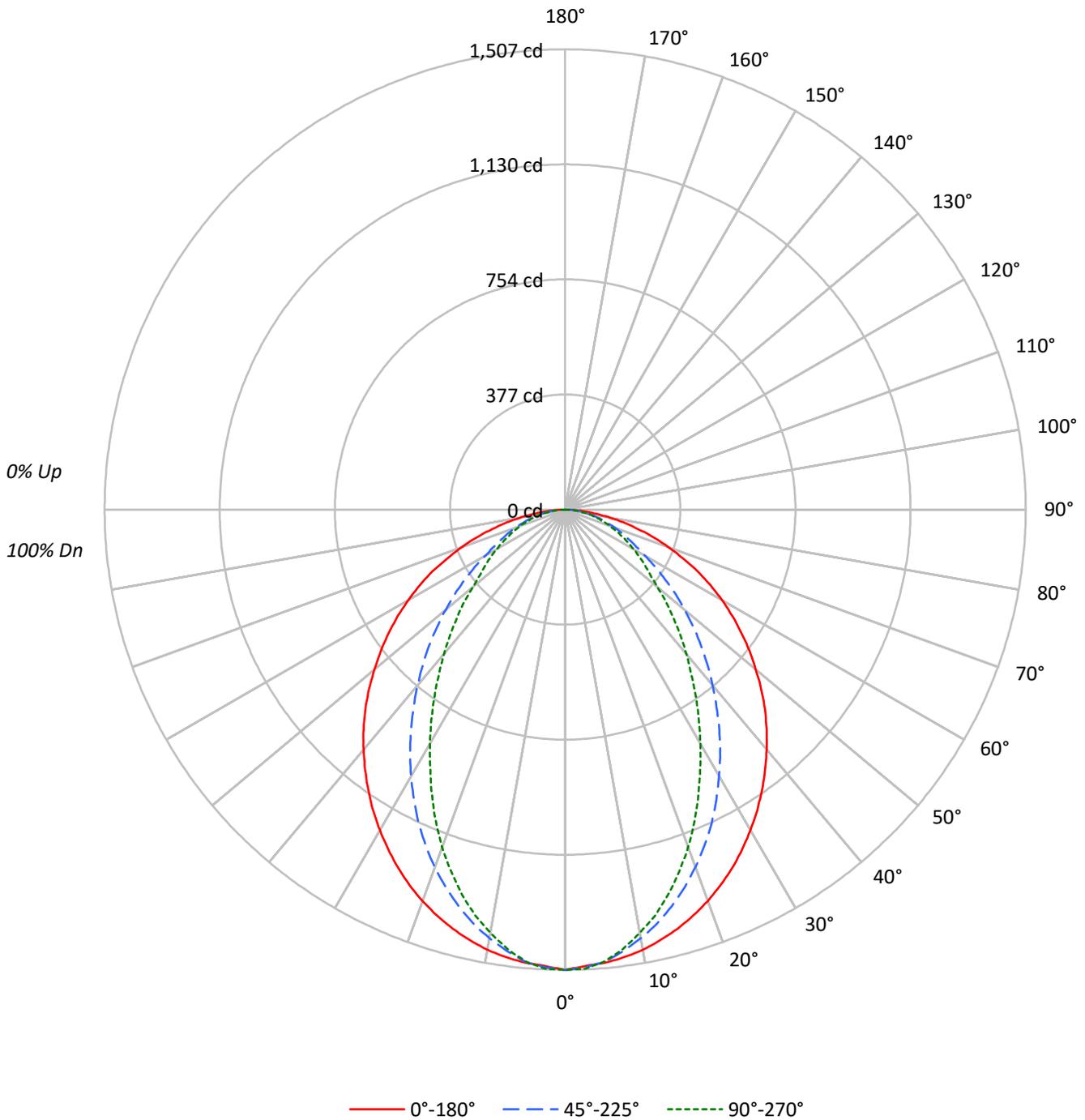
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3001.8 lumens  
Efficiency: N/A  
Efficacy: 113.7 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): 26.4  
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°	13325	13325	13325
5°	13219	13189	13180
10°	13143	12794	12634
15°	13003	12313	11938
20°	12835	11728	11071
25°	12625	11057	10062
30°	12375	10292	9035
35°	12113	9492	8043
40°	11839	8665	7117
45°	11551	7862	6254
50°	11196	7016	5400
55°	10855	6170	4906
60°	10472	5294	4550
65°	10000	4803	4245
70°	9288	4444	4015
75°	8410	4092	3788
80°	7342	3783	3559
85°	5630	3490	3266

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 11551 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.3	4.7
10°-20°	380.6	12.7
20°-30°	527.0	17.6
30°-40°	565.6	18.8
40°-50°	514.4	17.1
50°-60°	405.1	13.5
60°-70°	277.3	9.2
70°-80°	149.3	5.0
80°-90°	42.3	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°	1047.9	34.9
0°-40°	1613.6	53.8
0°-60°	2533.0	84.4
0°-90°	3001.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3001.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1507	1507	1507	1507	1507	
5°	1489	1506	1486	1478	1485	141
15°	1421	1405	1345	1309	1304	401
25°	1294	1241	1133	1051	1031	596
35°	1122	1035	879	773	745	702
45°	924	806	629	520	500	712
55°	704	570	400	323	318	630
65°	478	342	230	204	203	472
75°	246	150	120	110	111	263
85°	56	38	34	32	32	67
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1507.1	1507.1	1507.1	1507.1	1507.1
2.5°	1496.0	1513.8	1500.5	1502.7	1504.9
5°	1489.4	1506.0	1486.1	1478.3	1485.0
7.5°	1478.3	1489.4	1458.3	1443.9	1450.6
10°	1463.9	1466.1	1425.1	1404.0	1407.3
12.5°	1443.9	1438.4	1388.5	1358.5	1360.7
15°	1420.6	1405.1	1345.2	1308.6	1304.2
17.5°	1394.0	1368.5	1297.5	1251.0	1242.1
20°	1364.1	1329.7	1246.5	1186.6	1176.7
22.5°	1330.8	1286.4	1191.1	1120.1	1105.7
25°	1294.2	1241.0	1133.4	1051.3	1031.4
27.5°	1254.3	1192.2	1071.3	981.5	956.0
30°	1212.1	1141.2	1008.1	911.6	885.0
32.5°	1168.9	1089.0	943.8	841.7	814.0
35°	1122.3	1034.7	879.4	773.0	745.2
37.5°	1074.6	978.1	814.0	706.4	677.6
40°	1025.8	921.6	750.8	639.9	616.6
42.5°	975.9	863.9	688.7	577.8	556.7
45°	923.8	806.2	628.8	520.1	500.2
47.5°	870.6	747.5	567.8	465.8	446.9
50°	814.0	688.7	510.1	412.5	392.6
52.5°	759.7	628.8	454.7	360.4	350.4
55°	704.2	570.0	400.3	322.7	318.3
57.5°	648.8	511.2	350.4	292.8	288.3
60°	592.2	453.6	299.4	261.7	257.3
62.5°	535.6	397.0	261.7	231.8	229.6
65°	478.0	341.6	229.6	204.1	202.9
67.5°	417.0	288.3	200.7	179.7	178.5
70°	359.3	235.1	171.9	155.3	155.3
72.5°	305.0	186.3	145.3	132.0	132.0
75°	246.2	149.7	119.8	109.8	110.9
77.5°	194.1	117.6	96.5	89.8	89.8
80°	144.2	87.6	74.3	68.8	69.9
82.5°	97.6	61.0	53.2	49.9	49.9
85°	55.5	37.7	34.4	32.2	32.2
87.5°	20.0	17.7	16.6	14.4	15.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)