

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: P1055984

Luminaire Tested: S124R3DR-S1195D835-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055984  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124R3DR-S1195D835-X4F0-XX-UDD-FLL-S  
Description: DEFINE 4, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

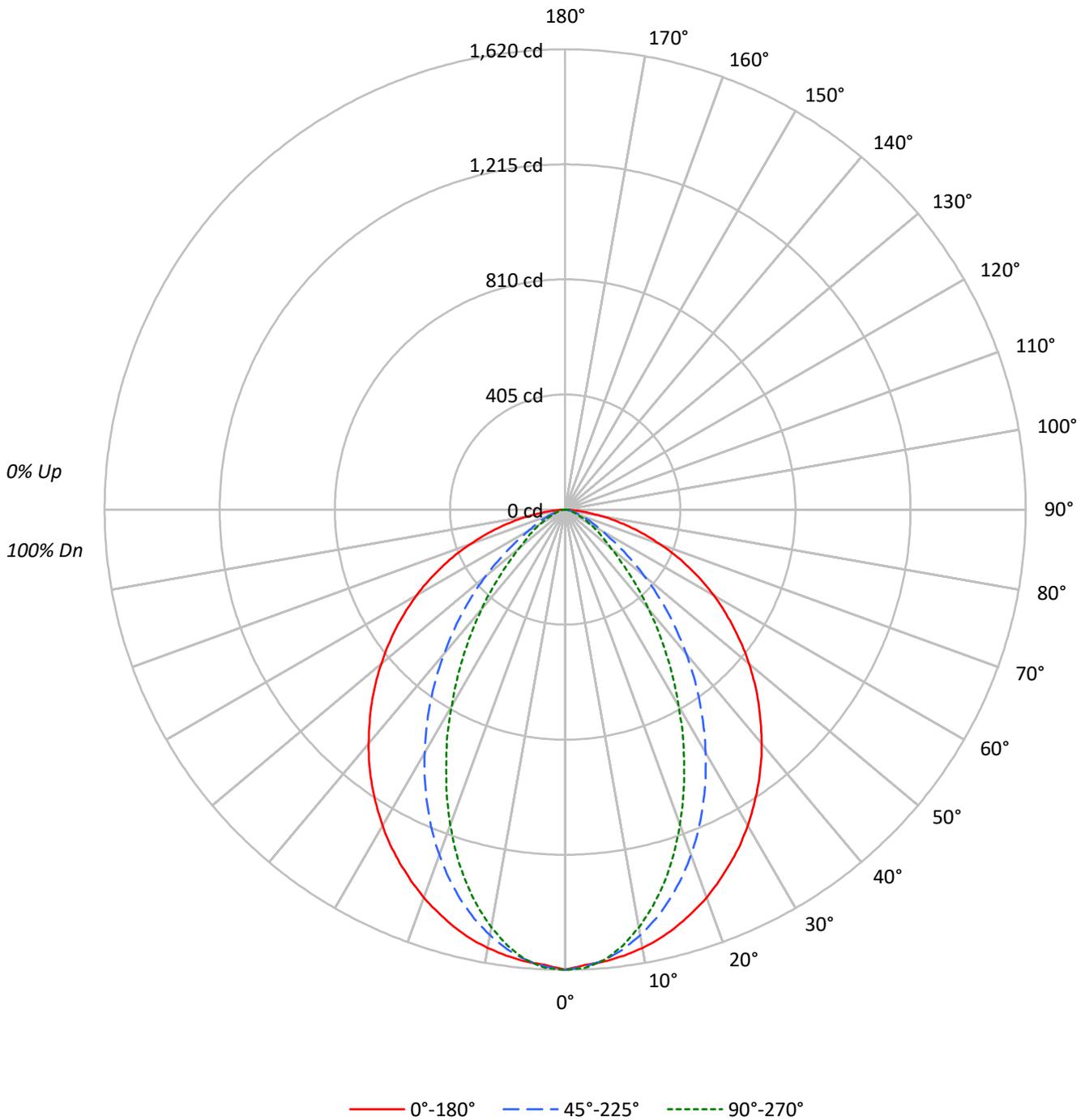
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2619.1 lumens  
Efficiency: N/A  
Efficacy: 62.5 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.87 / 1.03  
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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100	
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89			89	
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79	78			78	
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68			68	
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	71	66	62	60			60	
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54			54	
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50	48			48	
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44			44	
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40			40	
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37			37	
10	60	48	41	36	59	47	40	36	46	40	36	45	40	35	45	39	35	34			34	

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

	0°	45°	90°
0°	14321	14321	14321
5°	14175	14121	14121
10°	14068	13661	13405
15°	13901	13004	12396
20°	13679	12175	11111
25°	13403	11196	9651
30°	13118	10085	8130
35°	12778	8904	6691
40°	12411	7642	5275
45°	12031	6354	3941
50°	11617	5000	2883
55°	11159	3696	2301
60°	10668	2560	1759
65°	10033	1987	1293
70°	9084	1404	1013
75°	7935	980	772
80°	6375	769	692
85°	3520	609	609

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12031 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	150.2	5.7
10°-20°	401.4	15.3
20°-30°	535.4	20.4
30°-40°	539.1	20.6
40°-50°	442.1	16.9
50°-60°	302.2	11.5
60°-70°	168.9	6.4
70°-80°	67.0	2.6
80°-90°	12.7	0.5
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°	1087.1	41.5
0°-40°	1626.2	62.1
0°-60°	2370.5	90.5
0°-90°	2619.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2619.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1620	1620	1620	1620	1620	
5°	1597	1615	1591	1584	1591	152
15°	1519	1502	1421	1371	1354	428
25°	1374	1306	1148	1032	989	633
35°	1184	1059	825	668	620	740
45°	962	786	508	357	315	742
55°	724	508	240	160	149	647
65°	480	241	95	68	62	474
75°	232	63	29	24	23	249
85°	35	6	6	6	6	49
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1619.8	1619.8	1619.8	1619.8	1619.8
2.5°	1604.7	1624.3	1610.7	1612.2	1615.2
5°	1597.1	1615.2	1591.1	1583.6	1591.1
7.5°	1583.6	1597.1	1560.9	1545.9	1548.9
10°	1567.0	1571.5	1521.7	1496.1	1493.1
12.5°	1545.9	1539.8	1475.0	1437.3	1428.2
15°	1518.7	1502.1	1420.7	1370.9	1354.3
17.5°	1487.0	1458.4	1360.4	1295.5	1271.4
20°	1453.9	1411.6	1294.0	1211.0	1180.9
22.5°	1414.6	1361.9	1223.1	1122.1	1087.4
25°	1373.9	1306.1	1147.7	1031.6	989.3
27.5°	1331.7	1248.8	1069.3	939.6	897.4
30°	1284.9	1186.9	987.8	847.6	796.3
32.5°	1235.2	1123.6	906.4	757.1	708.8
35°	1183.9	1058.7	825.0	668.1	619.9
37.5°	1131.1	992.4	743.5	583.7	535.4
40°	1075.3	924.5	662.1	503.7	457.0
42.5°	1018.0	855.1	583.7	428.3	384.6
45°	962.2	785.7	508.2	357.4	315.2
47.5°	903.4	716.4	434.3	291.1	254.9
50°	844.6	647.0	363.5	233.8	209.6
52.5°	784.2	577.6	298.6	191.5	174.9
55°	723.9	508.2	239.8	159.9	149.3
57.5°	663.6	438.9	185.5	135.7	123.7
60°	603.3	371.0	144.8	110.1	99.5
62.5°	541.4	303.1	119.1	87.5	78.4
65°	479.6	241.3	95.0	67.9	61.8
67.5°	417.8	184.0	72.4	52.8	48.3
70°	351.4	131.2	54.3	40.7	39.2
72.5°	294.1	89.0	39.2	31.7	30.2
75°	232.3	63.3	28.7	24.1	22.6
77.5°	179.5	40.7	21.1	19.6	18.1
80°	125.2	22.6	15.1	13.6	13.6
82.5°	76.9	12.1	10.6	9.0	9.0
85°	34.7	6.0	6.0	6.0	6.0
87.5°	6.0	3.0	3.0	3.0	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)