

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: P1055998

Luminaire Tested: S124R3DR-S1195D935-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055998  
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-S1195D935-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: -

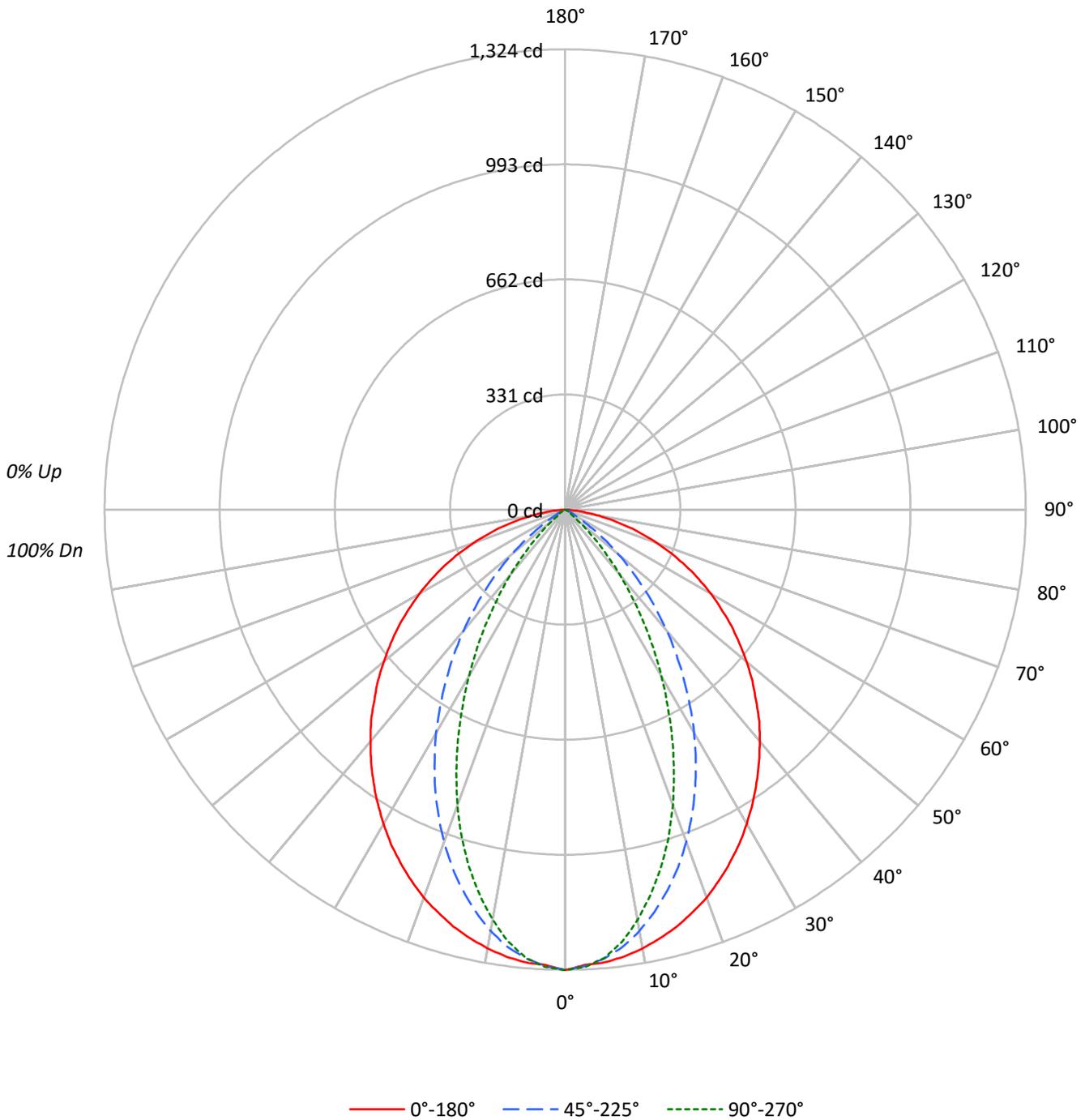
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1851.2 lumens  
Efficiency: N/A  
Efficacy: 44.2 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): 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	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°	11710	11710	11710
5°	11605	11501	11490
10°	11506	11052	10760
15°	11363	10388	9746
20°	11179	9578	8516
25°	10932	8627	7107
30°	10658	7570	5648
35°	10357	6419	4205
40°	10041	5231	2802
45°	9693	3994	1543
50°	9359	2733	429
55°	8987	1481	281
60°	8541	460	161
65°	7987	299	82
70°	7217	134	34
75°	6210	44	0
80°	4694	0	0
85°	1978	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9693 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.2	6.6
10°-20°	320.8	17.3
20°-30°	414.5	22.4
30°-40°	396.2	21.4
40°-50°	296.3	16.0
50°-60°	176.3	9.5
60°-70°	89.5	4.8
70°-80°	31.1	1.7
80°-90°	4.3	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°	857.5	46.3
0°-40°	1253.7	67.7
0°-60°	1726.3	93.3
0°-90°	1851.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1851.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1324	1324	1324	1324	1324	
5°	1308	1318	1296	1289	1295	124
15°	1241	1215	1135	1082	1065	350
25°	1121	1043	884	767	728	516
35°	960	827	595	443	390	600
45°	775	595	319	170	123	599
55°	583	362	96	22	18	521
65°	382	147	14	5	4	377
75°	182	20	1	1	0	193
85°	20	0	0	0	0	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1324.5	1324.5	1324.5	1324.5	1324.5
2.5°	1311.5	1327.1	1314.1	1315.4	1316.7
5°	1307.6	1318.0	1295.9	1289.4	1294.6
7.5°	1297.2	1301.1	1268.7	1251.8	1253.1
10°	1281.6	1277.7	1231.0	1202.4	1198.5
12.5°	1263.5	1250.5	1185.5	1144.0	1134.9
15°	1241.4	1215.4	1134.9	1081.7	1064.8
17.5°	1215.4	1177.8	1079.1	1008.9	988.2
20°	1188.1	1136.2	1018.0	931.0	905.1
22.5°	1155.7	1089.5	951.8	849.2	816.8
25°	1120.6	1042.7	884.3	767.4	728.5
27.5°	1084.3	992.1	812.9	684.3	638.9
30°	1044.0	938.8	741.5	599.9	553.2
32.5°	1002.5	884.3	667.4	522.0	470.1
35°	959.6	827.2	594.7	442.8	389.6
37.5°	915.5	770.0	524.6	367.5	312.9
40°	870.0	711.6	453.2	296.1	242.8
42.5°	825.9	653.2	385.7	228.5	179.2
45°	775.2	594.7	319.4	170.1	123.4
47.5°	729.8	537.6	255.8	115.6	72.7
50°	680.4	476.6	198.7	67.5	31.2
52.5°	631.1	419.4	145.4	29.9	23.4
55°	583.0	362.3	96.1	22.1	18.2
57.5°	532.4	305.2	51.9	16.9	13.0
60°	483.0	249.3	26.0	13.0	9.1
62.5°	432.4	196.1	20.8	7.8	5.2
65°	381.8	146.7	14.3	5.2	3.9
67.5°	331.1	100.0	9.1	2.6	1.3
70°	279.2	61.0	5.2	1.3	1.3
72.5°	229.8	31.2	2.6	1.3	1.3
75°	181.8	19.5	1.3	1.3	0.0
77.5°	135.0	10.4	1.3	1.3	0.0
80°	92.2	3.9	0.0	0.0	0.0
82.5°	53.2	1.3	0.0	0.0	0.0
85°	19.5	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)