

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: P1056001

Luminaire Tested: S124R3DR-S1195D940-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056001  
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-S1195D940-X4F0-XX-UDD-FLL-B  
Description: DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

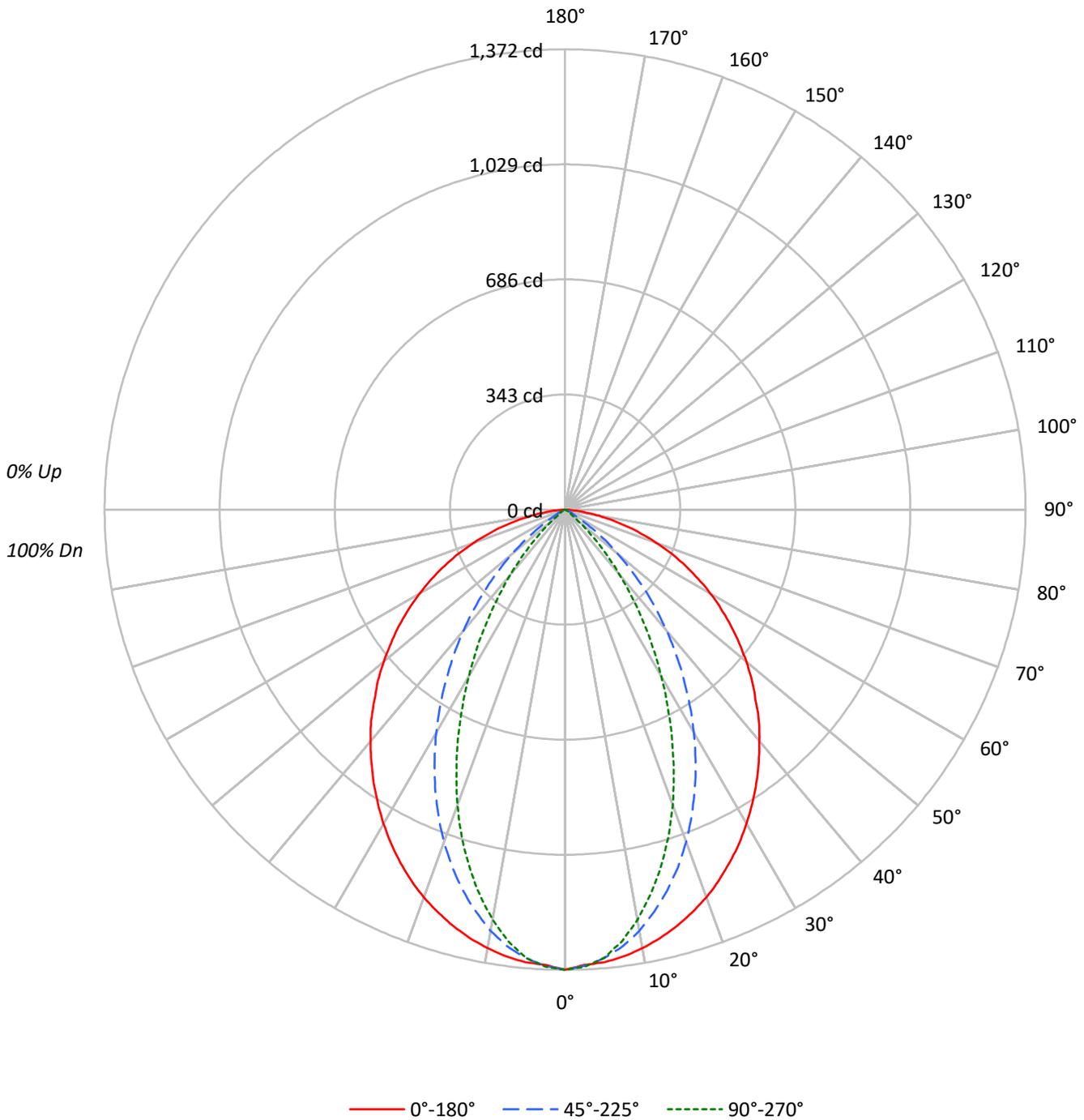
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1917.2 lumens  
Efficiency: N/A  
Efficacy: 45.8 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									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	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°	12128	12128	12128
5°	12019	11911	11900
10°	11917	11446	11144
15°	11768	10759	10094
20°	11578	9921	8820
25°	11322	8934	7360
30°	11038	7840	5849
35°	10726	6648	4355
40°	10399	5416	2903
45°	10039	4136	1598
50°	9693	2831	444
55°	9307	1534	290
60°	8847	476	166
65°	8272	310	84
70°	7473	140	34
75°	6432	44	0
80°	4862	0	0
85°	2049	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10039 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.5	6.6
10°-20°	332.2	17.3
20°-30°	429.3	22.4
30°-40°	410.3	21.4
40°-50°	306.9	16.0
50°-60°	182.6	9.5
60°-70°	92.7	4.8
70°-80°	32.2	1.7
80°-90°	4.4	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°	888.1	46.3
0°-40°	1298.4	67.7
0°-60°	1787.9	93.3
0°-90°	1917.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1917.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1372	1372	1372	1372	1372	
5°	1354	1365	1342	1335	1341	128
15°	1286	1259	1175	1120	1103	362
25°	1161	1080	916	795	754	534
35°	994	857	616	459	404	621
45°	803	616	331	176	128	621
55°	604	375	100	23	19	539
65°	395	152	15	5	4	391
75°	188	20	1	1	0	200
85°	20	0	0	0	0	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1371.7	1371.7	1371.7	1371.7	1371.7
2.5°	1358.3	1374.4	1361.0	1362.3	1363.7
5°	1354.2	1365.0	1342.1	1335.4	1340.8
7.5°	1343.5	1347.5	1313.9	1296.4	1297.8
10°	1327.4	1323.3	1274.9	1245.3	1241.3
12.5°	1308.5	1295.1	1227.8	1184.8	1175.4
15°	1285.7	1258.8	1175.4	1120.2	1102.8
17.5°	1258.8	1219.8	1117.6	1044.9	1023.4
20°	1230.5	1176.7	1054.4	964.2	937.4
22.5°	1196.9	1128.3	985.8	879.5	845.9
25°	1160.6	1079.9	915.8	794.8	754.5
27.5°	1122.9	1027.5	841.9	708.7	661.7
30°	1081.2	972.3	767.9	621.3	572.9
32.5°	1038.2	915.8	691.2	540.6	486.8
35°	993.8	856.7	615.9	458.6	403.5
37.5°	948.1	797.5	543.3	380.6	324.1
40°	901.0	737.0	469.3	306.6	251.5
42.5°	855.3	676.5	399.4	236.7	185.6
45°	802.9	615.9	330.8	176.2	127.8
47.5°	755.8	556.8	264.9	119.7	75.3
50°	704.7	493.6	205.8	69.9	32.3
52.5°	653.6	434.4	150.6	30.9	24.2
55°	603.8	375.2	99.5	22.9	18.8
57.5°	551.4	316.0	53.8	17.5	13.4
60°	500.3	258.2	26.9	13.4	9.4
62.5°	447.8	203.1	21.5	8.1	5.4
65°	395.4	152.0	14.8	5.4	4.0
67.5°	342.9	103.6	9.4	2.7	1.3
70°	289.1	63.2	5.4	1.3	1.3
72.5°	238.0	32.3	2.7	1.3	1.3
75°	188.3	20.2	1.3	1.3	0.0
77.5°	139.9	10.8	1.3	1.3	0.0
80°	95.5	4.0	0.0	0.0	0.0
82.5°	55.1	1.3	0.0	0.0	0.0
85°	20.2	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)