

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: P1055992

Luminaire Tested: S124R3DR-S1195D927-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055992  
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-S1195D927-X4F0-XX-UDD-FLL-B  
Description: DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

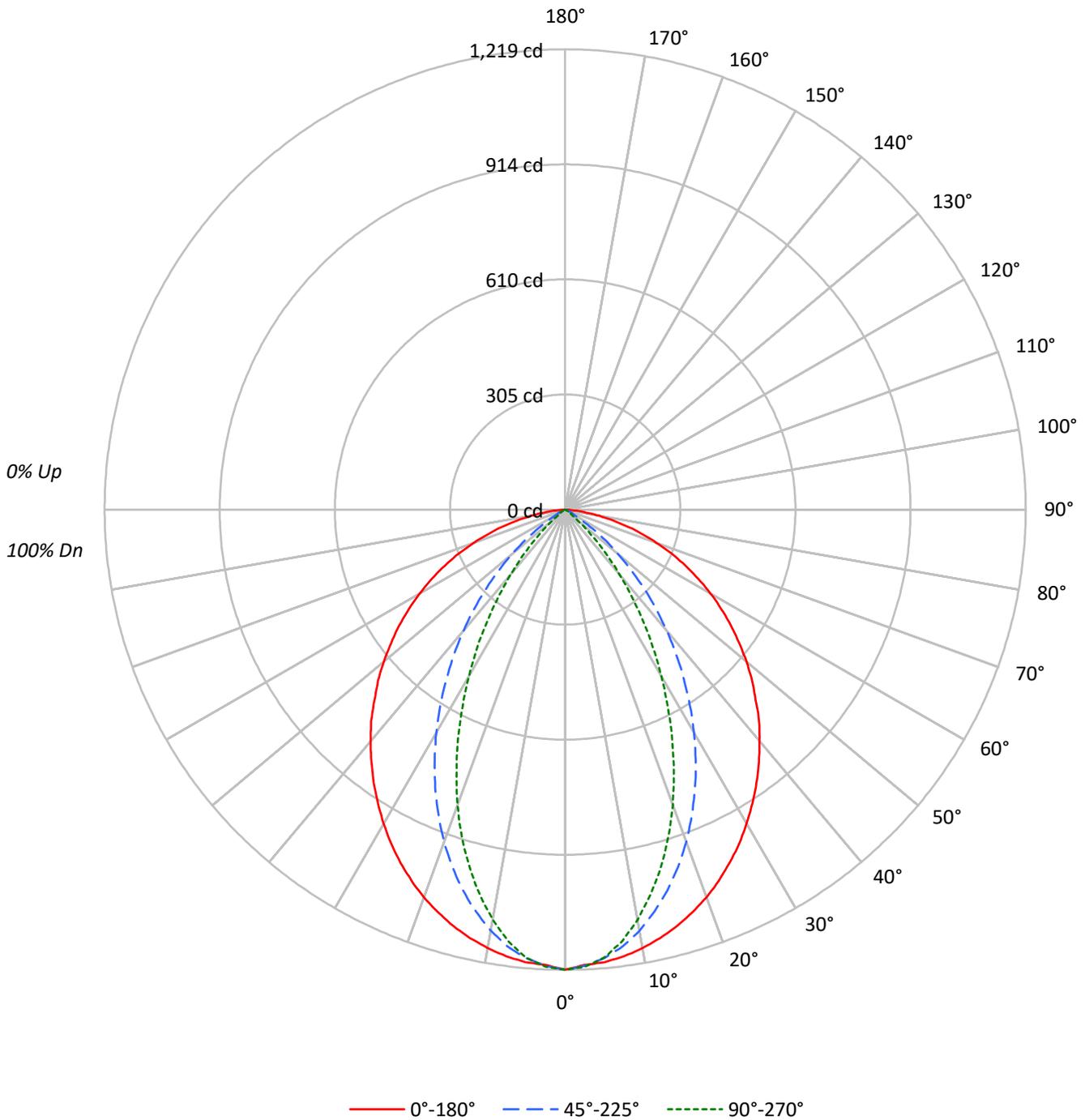
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1703.2 lumens  
Efficiency: N/A  
Efficacy: 40.7 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°	10774	10774	10774
5°	10678	10582	10571
10°	10587	10168	9900
15°	10455	9558	8967
20°	10286	8813	7835
25°	10059	7937	6538
30°	9807	6965	5196
35°	9529	5906	3868
40°	9239	4813	2578
45°	8919	3675	1419
50°	8610	2514	395
55°	8268	1363	257
60°	7858	423	149
65°	7349	274	75
70°	6641	124	31
75°	5715	41	0
80°	4318	0	0
85°	1816	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8919 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.4	6.6
10°-20°	295.1	17.3
20°-30°	381.4	22.4
30°-40°	364.5	21.4
40°-50°	272.6	16.0
50°-60°	162.2	9.5
60°-70°	82.4	4.8
70°-80°	28.7	1.7
80°-90°	3.9	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°	788.9	46.3
0°-40°	1153.5	67.7
0°-60°	1588.3	93.3
0°-90°	1703.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1703.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1219	1219	1219	1219	1219	
5°	1203	1213	1192	1186	1191	114
15°	1142	1118	1044	995	980	322
25°	1031	959	814	706	670	475
35°	883	761	547	407	358	552
45°	713	547	294	156	114	551
55°	536	333	88	20	17	479
65°	351	135	13	5	4	347
75°	167	18	1	1	0	178
85°	18	0	0	0	0	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1218.6	1218.6	1218.6	1218.6	1218.6
2.5°	1206.7	1221.0	1209.1	1210.3	1211.5
5°	1203.1	1212.7	1192.3	1186.4	1191.1
7.5°	1193.5	1197.1	1167.3	1151.7	1152.9
10°	1179.2	1175.6	1132.6	1106.3	1102.7
12.5°	1162.5	1150.5	1090.8	1052.6	1044.2
15°	1142.2	1118.3	1044.2	995.2	979.7
17.5°	1118.3	1083.6	992.8	928.3	909.2
20°	1093.2	1045.4	936.7	856.6	832.7
22.5°	1063.3	1002.4	875.7	781.4	751.5
25°	1031.1	959.4	813.6	706.1	670.2
27.5°	997.6	912.8	747.9	629.6	587.8
30°	960.6	863.8	682.2	552.0	509.0
32.5°	922.3	813.6	614.1	480.3	432.5
35°	882.9	761.0	547.2	407.4	358.4
37.5°	842.3	708.5	482.7	338.1	287.9
40°	800.5	654.7	417.0	272.4	223.4
42.5°	759.8	600.9	354.8	210.3	164.9
45°	713.3	547.2	293.9	156.5	113.5
47.5°	671.4	494.6	235.4	106.3	66.9
50°	626.0	438.5	182.8	62.1	28.7
52.5°	580.6	385.9	133.8	27.5	21.5
55°	536.4	333.3	88.4	20.3	16.7
57.5°	489.8	280.8	47.8	15.5	11.9
60°	444.4	229.4	23.9	11.9	8.4
62.5°	397.8	180.4	19.1	7.2	4.8
65°	351.3	135.0	13.1	4.8	3.6
67.5°	304.7	92.0	8.4	2.4	1.2
70°	256.9	56.2	4.8	1.2	1.2
72.5°	211.5	28.7	2.4	1.2	1.2
75°	167.3	17.9	1.2	1.2	0.0
77.5°	124.3	9.6	1.2	1.2	0.0
80°	84.8	3.6	0.0	0.0	0.0
82.5°	49.0	1.2	0.0	0.0	0.0
85°	17.9	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)