

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: P1056069

Luminaire Tested: S124R3DR-S795D840-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056069  
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-S795D840-X4F0-XX-UDD-FLL-W  
Description: DEFINE 4, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

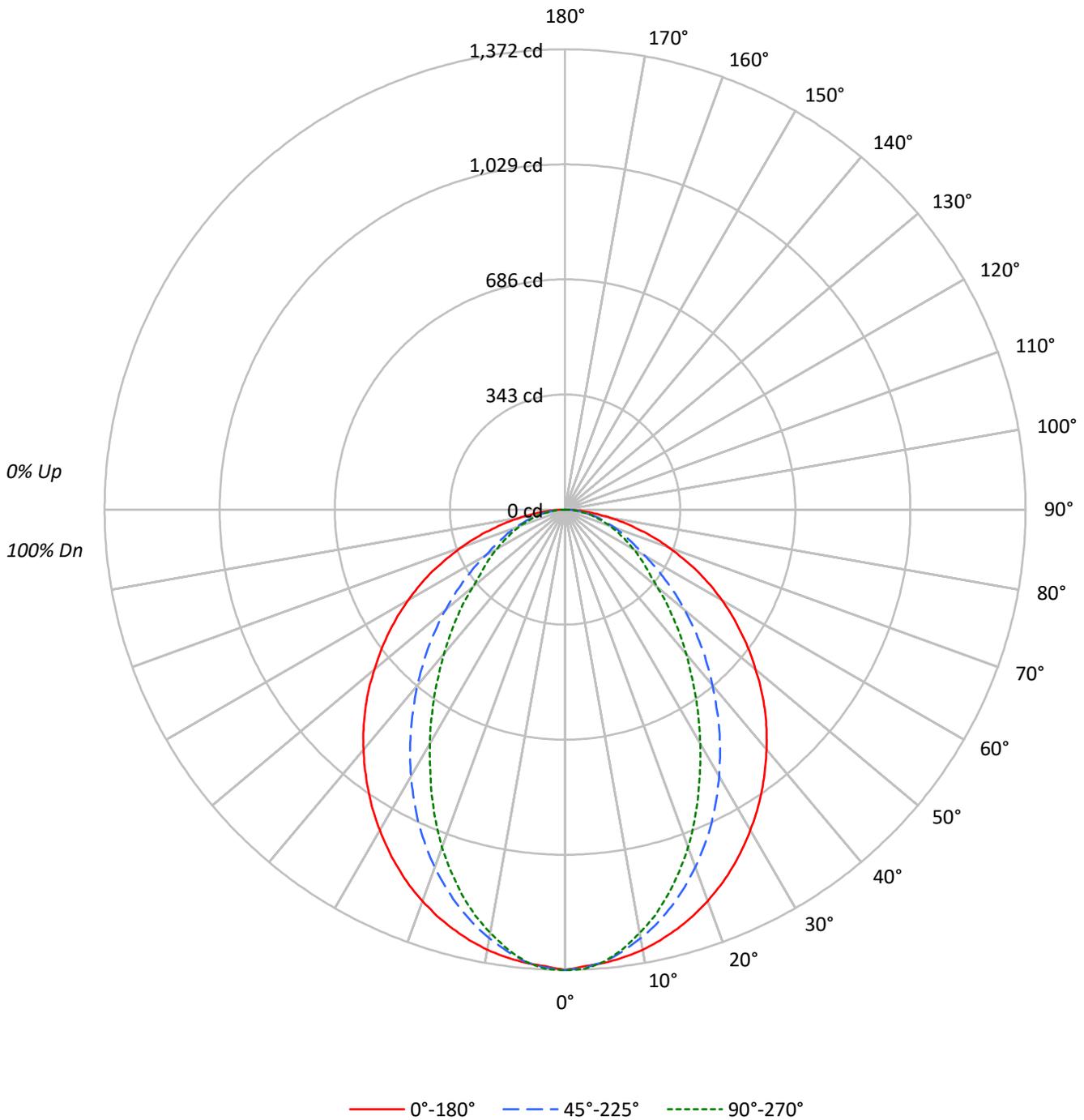
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2733.5 lumens  
Efficiency: N/A  
Efficacy: 103.5 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										
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	0														
RCR																																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100															
1	110	105	102	98	107	103	100	97	99	96	93	95	93	91	92	90	88	86					86															
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	76	73					73															
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63					63															
4	85	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55					55															
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49					49															
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43					43															
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39					39															
8	64	51	43	38	62	51	43	38	49	42	37	48	42	37	47	41	37	35					35															
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32					32															
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29					29															

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

	0°	45°	90°
0°	12134	12134	12134
5°	12037	12010	12001
10°	11967	11650	11505
15°	11841	11213	10870
20°	11687	10680	10082
25°	11497	10069	9162
30°	11269	9372	8228
35°	11031	8643	7324
40°	10781	7891	6481
45°	10518	7160	5695
50°	10195	6389	4917
55°	9885	5620	4467
60°	9536	4822	4143
65°	9107	4372	3866
70°	8458	4046	3655
75°	7659	3727	3450
80°	6685	3447	3238
85°	5123	3175	2972

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10518 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.8	4.7
10°-20°	346.6	12.7
20°-30°	479.9	17.6
30°-40°	515.1	18.8
40°-50°	468.4	17.1
50°-60°	368.9	13.5
60°-70°	252.5	9.2
70°-80°	135.9	5.0
80°-90°	38.5	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°	954.3	34.9
0°-40°	1469.3	53.8
0°-60°	2306.6	84.4
0°-90°	2733.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2733.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1372	1372	1372	1372	1372	
5°	1356	1371	1353	1346	1352	129
15°	1294	1280	1225	1192	1188	365
25°	1178	1130	1032	957	939	543
35°	1022	942	801	704	679	639
45°	841	734	573	474	456	649
55°	641	519	365	294	290	573
65°	435	311	209	186	185	429
75°	224	136	109	100	101	239
85°	50	34	31	29	29	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1372.4	1372.4	1372.4	1372.4	1372.4
2.5°	1362.3	1378.5	1366.4	1368.4	1370.4
5°	1356.3	1371.4	1353.2	1346.2	1352.2
7.5°	1346.2	1356.3	1328.0	1314.8	1320.9
10°	1333.0	1335.0	1297.7	1278.5	1281.5
12.5°	1314.8	1309.8	1264.4	1237.1	1239.1
15°	1293.6	1279.5	1225.0	1191.6	1187.6
17.5°	1269.4	1246.2	1181.5	1139.1	1131.1
20°	1242.1	1210.8	1135.1	1080.6	1071.5
22.5°	1211.8	1171.4	1084.6	1020.0	1006.8
25°	1178.5	1130.0	1032.1	957.4	939.2
27.5°	1142.2	1085.6	975.5	893.7	870.5
30°	1103.8	1039.2	918.0	830.1	805.9
32.5°	1064.4	991.7	859.4	766.5	741.2
35°	1022.0	942.2	800.8	703.9	678.6
37.5°	978.6	890.7	741.2	643.3	617.0
40°	934.1	839.2	683.7	582.7	561.5
42.5°	888.7	786.7	627.1	526.1	507.0
45°	841.2	734.2	572.6	473.6	455.5
47.5°	792.7	680.7	517.1	424.1	407.0
50°	741.2	627.1	464.5	375.7	357.5
52.5°	691.8	572.6	414.0	328.2	319.1
55°	641.3	519.1	364.6	293.9	289.8
57.5°	590.8	465.5	319.1	266.6	262.6
60°	539.3	413.0	272.7	238.3	234.3
62.5°	487.8	361.5	238.3	211.1	209.0
65°	435.3	311.0	209.0	185.8	184.8
67.5°	379.7	262.6	182.8	163.6	162.6
70°	327.2	214.1	156.5	141.4	141.4
72.5°	277.7	169.7	132.3	120.2	120.2
75°	224.2	136.3	109.1	100.0	101.0
77.5°	176.7	107.0	87.9	81.8	81.8
80°	131.3	79.8	67.7	62.6	63.6
82.5°	88.9	55.5	48.5	45.4	45.4
85°	50.5	34.3	31.3	29.3	29.3
87.5°	18.2	16.2	15.1	13.1	14.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)