

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: P1055616

Luminaire Tested: S123R3DR-S340D927-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055616  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123R3DR-S340D927-X4F0-XX-UDD-FLL-W  
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

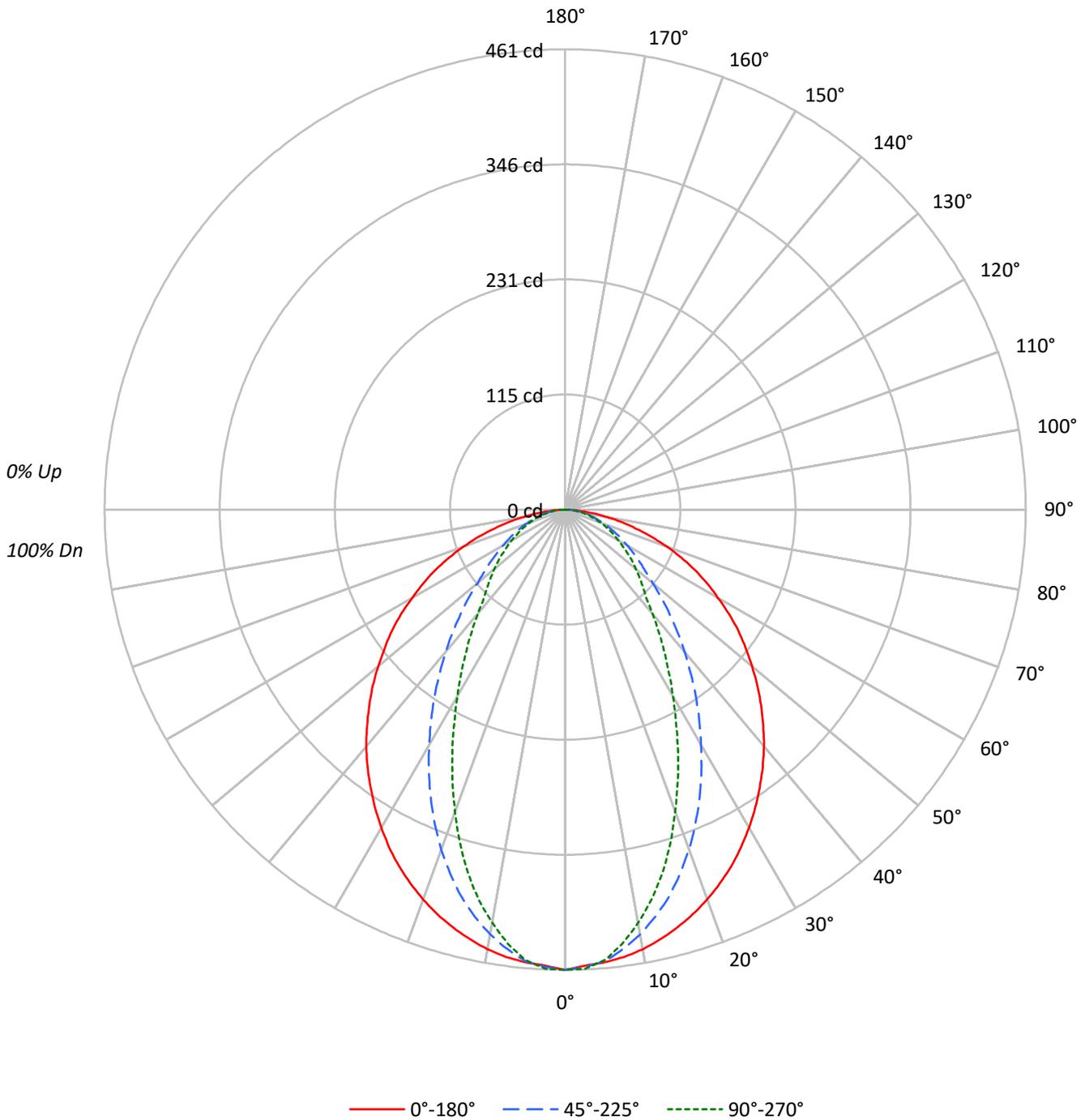
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 808.5 lumens  
Efficiency: N/A  
Efficacy: 64.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02  
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 12.6  
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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86				86
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	83	79	76	74				74
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65				65
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57				57
5	80	68	60	54	78	67	60	54	65	58	53	63	57	53	62	56	52	50				50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45				45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40				40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	39	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34				34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31				31

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

	0°	45°	90°
0°	5558	5558	5558
5°	5508	5496	5484
10°	5475	5289	5145
15°	5410	5010	4699
20°	5331	4650	4131
25°	5239	4234	3555
30°	5122	3787	3004
35°	4998	3350	2537
40°	4873	2924	2133
45°	4726	2522	1881
50°	4578	2148	1727
55°	4444	1913	1595
60°	4256	1729	1488
65°	4082	1583	1398
70°	3804	1459	1311
75°	3405	1351	1234
80°	2923	1243	1153
85°	2047	1148	1093

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4726 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.7	5.3
10°-20°	113.1	14.0
20°-30°	148.9	18.4
30°-40°	151.2	18.7
40°-50°	131.4	16.2
50°-60°	103.0	12.7
60°-70°	69.9	8.7
70°-80°	37.9	4.7
80°-90°	10.4	1.3
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°	304.7	37.7
0°-40°	455.9	56.4
0°-60°	690.2	85.4
0°-90°	808.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	808.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	461	461	461	461	461	
5°	455	461	454	450	453	43
15°	433	427	401	382	376	122
25°	394	370	318	279	267	181
35°	340	299	228	184	172	212
45°	277	222	148	114	110	214
55°	211	147	91	78	76	189
65°	143	79	56	50	49	141
75°	73	36	29	27	26	78
85°	15	9	8	8	8	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	461.0	461.0	461.0	461.0	461.0
2.5°	457.2	463.1	458.6	458.9	460.3
5°	455.1	460.7	454.1	450.0	453.1
7.5°	452.0	456.2	444.1	437.6	438.6
10°	447.2	448.6	432.0	421.7	420.3
12.5°	440.7	438.2	417.6	402.4	400.0
15°	433.4	427.2	401.4	381.7	376.5
17.5°	425.1	414.8	382.4	358.3	350.3
20°	415.5	401.0	362.4	331.7	322.0
22.5°	405.1	386.5	340.7	304.5	294.5
25°	393.8	370.0	318.3	278.6	267.2
27.5°	381.4	353.4	295.5	253.1	240.3
30°	367.9	336.2	272.0	228.3	215.8
32.5°	354.1	317.9	249.6	205.2	193.1
35°	339.6	299.3	227.6	184.1	172.4
37.5°	324.8	280.3	206.2	164.1	153.1
40°	309.6	261.0	185.8	145.5	135.5
42.5°	293.4	241.7	166.2	127.9	120.3
45°	277.2	222.4	147.9	114.1	110.3
47.5°	261.0	202.7	130.7	104.5	101.0
50°	244.1	183.8	114.5	95.5	92.1
52.5°	227.6	165.2	101.0	86.9	84.5
55°	211.4	146.9	91.0	77.6	75.9
57.5°	194.5	129.0	81.0	70.3	68.3
60°	176.5	111.7	71.7	62.8	61.7
62.5°	160.3	95.5	63.4	56.2	55.2
65°	143.1	79.3	55.5	49.7	49.0
67.5°	125.5	65.9	48.3	43.4	43.1
70°	107.9	55.5	41.4	37.6	37.2
72.5°	90.7	45.9	34.8	32.4	31.7
75°	73.1	36.5	29.0	26.9	26.5
77.5°	57.2	28.3	23.1	21.7	21.4
80°	42.1	21.0	17.9	16.9	16.6
82.5°	27.6	14.5	12.8	12.1	12.1
85°	14.8	9.0	8.3	7.6	7.9
87.5°	5.2	3.8	3.8	3.4	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)