

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: P1055678

Luminaire Tested: S123R3DR-S775D940-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055678  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123R3DR-S775D940-X4F0-XX-UDD-FLL-S  
Description: DEFINE 3, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

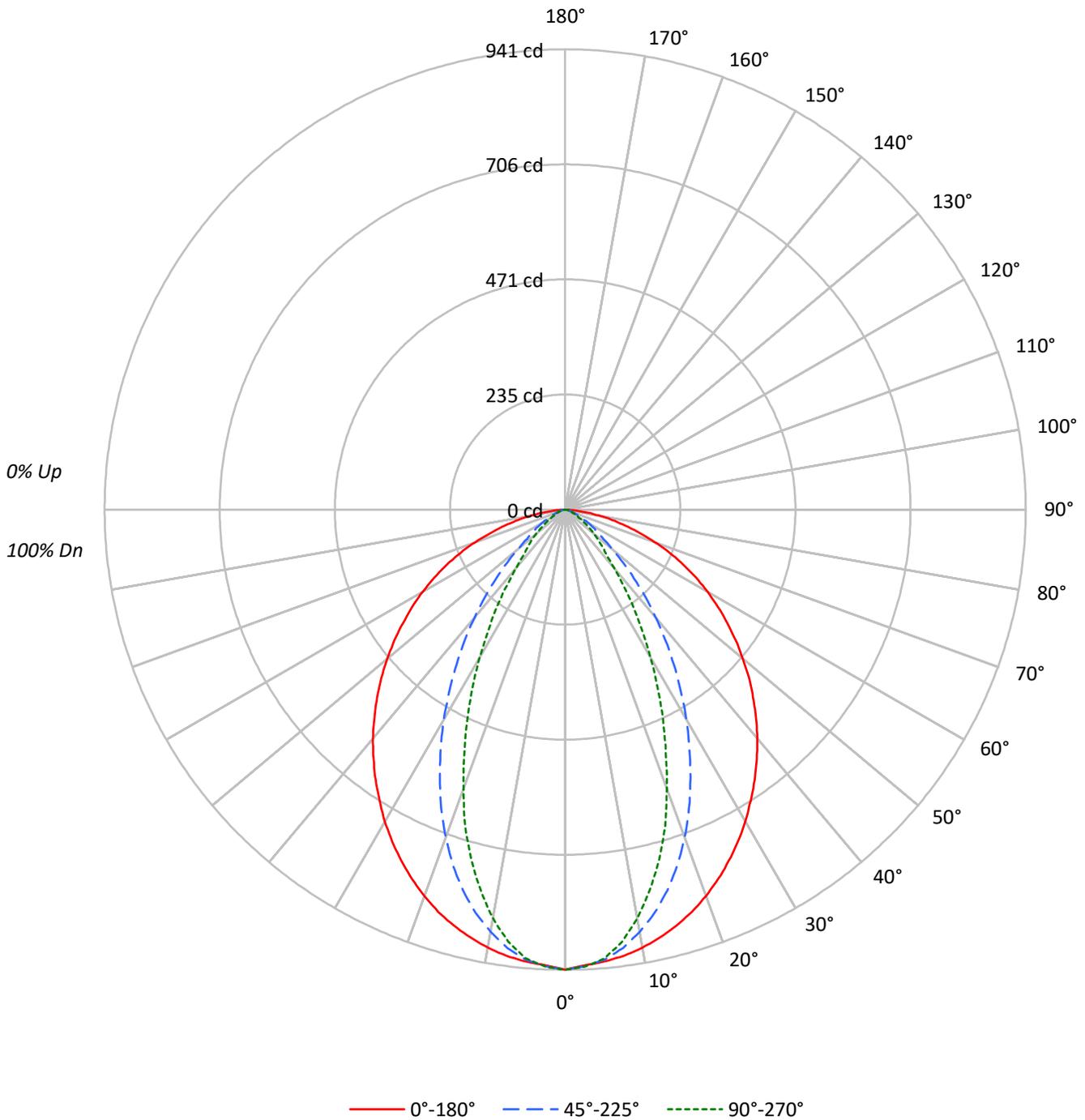
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1308.3 lumens  
Efficiency: N/A  
Efficacy: 49.6 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 0.77 / 0.94  
Luminous Opening: Rectangular (W 0.23' 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					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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89			89	
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79			79	
3	96	88	81	76	94	86	80	76	84	78	74	81	77	73	79	75	72	70			70	
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62			62	
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56			56	
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53	51			51	
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46			46	
8	69	57	50	45	68	57	50	45	56	49	45	54	49	44	53	48	44	42			42	
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39			39	
10	61	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36			36	

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

	0°	45°	90°
0°	11343	11343	11343
5°	11224	11180	11148
10°	11134	10730	10393
15°	10985	10062	9249
20°	10789	9153	7792
25°	10533	8055	6287
30°	10255	6902	4842
35°	9935	5696	3582
40°	9613	4533	2443
45°	9260	3391	1840
50°	8881	2358	1439
55°	8490	1724	1049
60°	8085	1290	752
65°	7606	864	585
70°	6884	627	472
75°	5939	457	373
80°	4770	375	312
85°	2462	373	249

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9260 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.0	6.6
10°-20°	226.4	17.3
20°-30°	284.4	21.7
30°-40°	264.9	20.2
40°-50°	202.8	15.5
50°-60°	134.8	10.3
60°-70°	72.6	5.6
70°-80°	29.8	2.3
80°-90°	5.7	0.4
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°	597.7	45.7
0°-40°	862.6	65.9
0°-60°	1200.2	91.7
0°-90°	1308.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1308.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	941	941	941	941	941	
5°	927	937	924	920	921	88
15°	880	866	806	759	741	248
25°	792	738	606	505	473	365
35°	675	575	387	274	243	422
45°	543	401	199	117	108	419
55°	404	234	82	57	50	362
65°	267	90	30	22	20	263
75°	128	21	10	9	8	137
85°	18	3	3	3	2	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	940.8	940.8	940.8	940.8	940.8
2.5°	932.7	944.3	934.5	935.4	935.4
5°	927.4	937.2	923.8	920.2	921.1
7.5°	920.2	926.5	904.2	892.6	890.8
10°	909.5	911.3	876.5	856.0	848.9
12.5°	896.2	889.9	844.4	810.6	797.2
15°	880.1	865.8	806.1	758.8	741.0
17.5°	862.3	838.2	762.4	700.9	679.5
20°	840.9	807.0	713.4	636.7	607.3
22.5°	817.7	774.0	661.6	570.7	537.7
25°	791.8	738.3	605.5	504.7	472.6
27.5°	765.1	700.0	550.2	442.3	409.3
30°	736.6	660.8	495.8	381.7	347.8
32.5°	705.3	618.0	439.6	325.5	291.6
35°	675.0	575.2	387.0	273.8	243.4
37.5°	642.9	532.4	336.2	228.3	194.4
40°	610.8	488.7	288.0	183.7	155.2
42.5°	576.9	445.0	242.5	146.2	123.9
45°	543.1	401.3	198.9	116.8	107.9
47.5°	509.2	357.6	160.5	100.8	91.8
50°	473.5	315.7	125.7	85.6	76.7
52.5°	439.6	273.8	98.1	70.4	62.4
55°	403.9	233.6	82.0	57.1	49.9
57.5°	371.0	192.6	67.8	44.6	39.2
60°	335.3	156.0	53.5	34.8	31.2
62.5°	301.4	122.2	41.0	27.6	25.0
65°	266.6	90.1	30.3	22.3	20.5
67.5°	231.8	65.1	23.2	17.8	16.9
70°	195.3	49.0	17.8	14.3	13.4
72.5°	160.5	34.8	13.4	11.6	10.7
75°	127.5	21.4	9.8	8.9	8.0
77.5°	98.1	12.5	7.1	7.1	6.2
80°	68.7	7.1	5.4	5.4	4.5
82.5°	41.9	4.5	3.6	3.6	3.6
85°	17.8	2.7	2.7	2.7	1.8
87.5°	2.7	0.9	0.9	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)