

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: P1055663

Luminaire Tested: S123R3DR-S775D840-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055663  
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-S775D840-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, 80 CRI LEDS  
Ballast/Driver: -

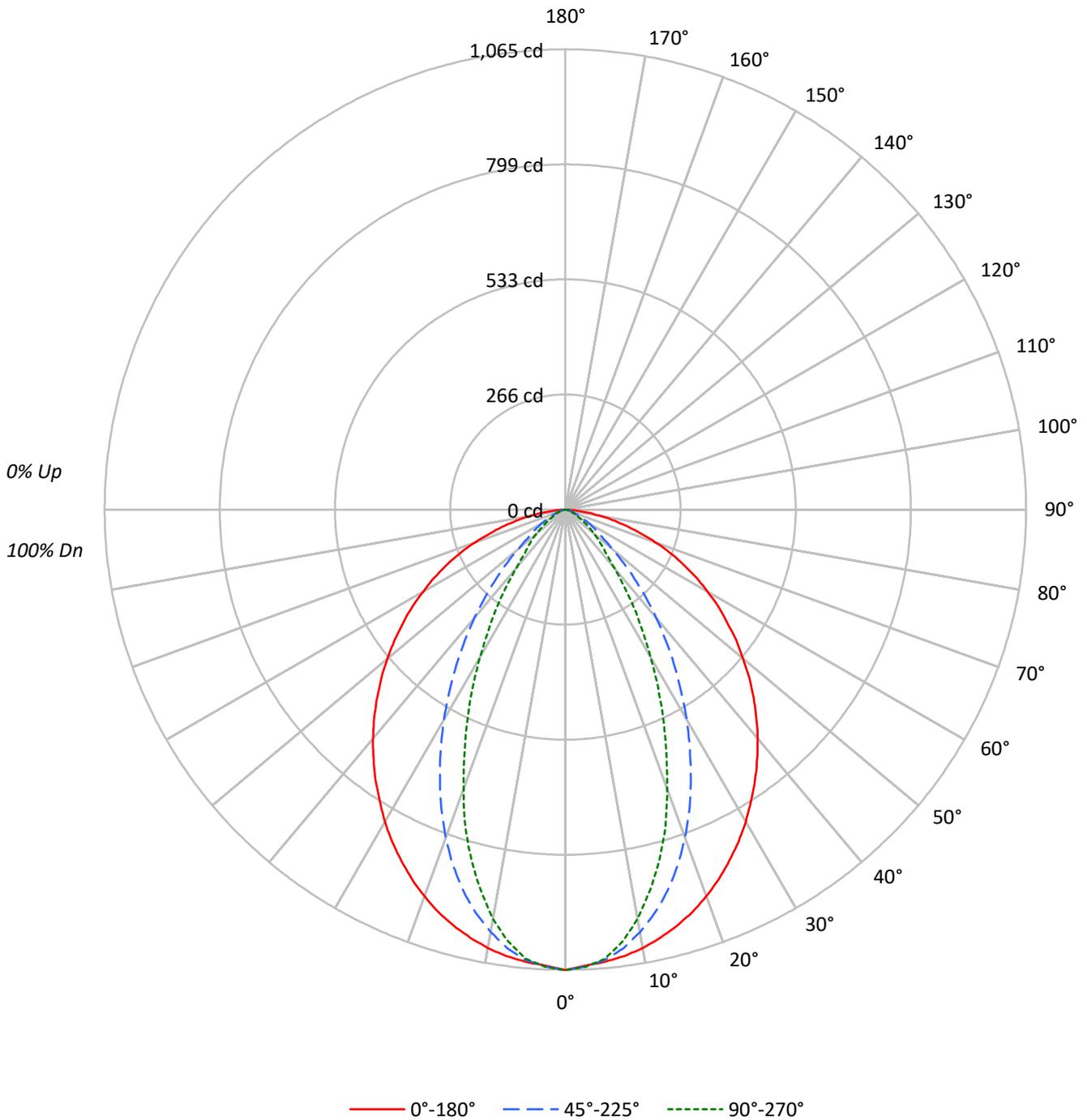
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1481.6 lumens  
Efficiency: N/A  
Efficacy: 56.1 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	62	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°	12845	12845	12845
5°	12711	12662	12625
10°	12611	12153	11770
15°	12441	11395	10475
20°	12218	10365	8823
25°	11930	9122	7120
30°	11612	7817	5482
35°	11252	6451	4058
40°	10888	5134	2765
45°	10486	3840	2084
50°	10057	2671	1628
55°	9617	1953	1190
60°	9156	1461	851
65°	8613	979	662
70°	7797	712	532
75°	6726	517	424
80°	5402	424	347
85°	2794	415	277

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10486 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	98.5	6.6
10°-20°	256.4	17.3
20°-30°	322.1	21.7
30°-40°	300.0	20.2
40°-50°	229.6	15.5
50°-60°	152.6	10.3
60°-70°	82.3	5.6
70°-80°	33.7	2.3
80°-90°	6.4	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°	676.9	45.7
0°-40°	976.9	65.9
0°-60°	1359.2	91.7
0°-90°	1481.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1481.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1065	1065	1065	1065	1065	
5°	1050	1061	1046	1042	1043	100
15°	997	981	913	859	839	281
25°	897	836	686	572	535	413
35°	764	651	438	310	276	478
45°	615	454	225	132	122	474
55°	458	265	93	65	57	410
65°	302	102	34	25	23	298
75°	144	24	11	10	9	155
85°	20	3	3	3	2	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1065.4	1065.4	1065.4	1065.4	1065.4
2.5°	1056.3	1069.4	1058.3	1059.3	1059.3
5°	1050.3	1061.4	1046.2	1042.2	1043.2
7.5°	1042.2	1049.2	1024.0	1010.9	1008.9
10°	1030.1	1032.1	992.7	969.5	961.4
12.5°	1014.9	1007.8	956.3	918.0	902.8
15°	996.7	980.6	912.9	859.4	839.2
17.5°	976.5	949.3	863.4	793.8	769.5
20°	952.3	913.9	807.9	721.0	687.7
22.5°	926.0	876.6	749.3	646.3	608.9
25°	896.8	836.2	685.7	571.6	535.2
27.5°	866.5	792.7	623.1	500.9	463.5
30°	834.1	748.3	561.5	432.2	393.8
32.5°	798.8	699.8	497.9	368.6	330.2
35°	764.5	651.4	438.3	310.0	275.7
37.5°	728.1	602.9	380.7	258.5	220.2
40°	691.8	553.4	326.2	208.0	175.7
42.5°	653.4	503.9	274.7	165.6	140.4
45°	615.0	454.4	225.2	132.3	122.2
47.5°	576.6	405.0	181.8	114.1	104.0
50°	536.2	357.5	142.4	96.9	86.8
52.5°	497.9	310.0	111.1	79.8	70.7
55°	457.5	264.6	92.9	64.6	56.6
57.5°	420.1	218.1	76.7	50.5	44.4
60°	379.7	176.7	60.6	39.4	35.3
62.5°	341.3	138.4	46.5	31.3	28.3
65°	301.9	102.0	34.3	25.2	23.2
67.5°	262.6	73.7	26.3	20.2	19.2
70°	221.2	55.5	20.2	16.2	15.1
72.5°	181.8	39.4	15.1	13.1	12.1
75°	144.4	24.2	11.1	10.1	9.1
77.5°	111.1	14.1	8.1	8.1	7.1
80°	77.8	8.1	6.1	6.1	5.0
82.5°	47.5	5.0	4.0	4.0	4.0
85°	20.2	3.0	3.0	3.0	2.0
87.5°	3.0	1.0	1.0	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)