

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: P1055667

Luminaire Tested: S123R3DR-S775D850-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055667  
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-S775D850-X4F0-XX-UDD-FLL-W  
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

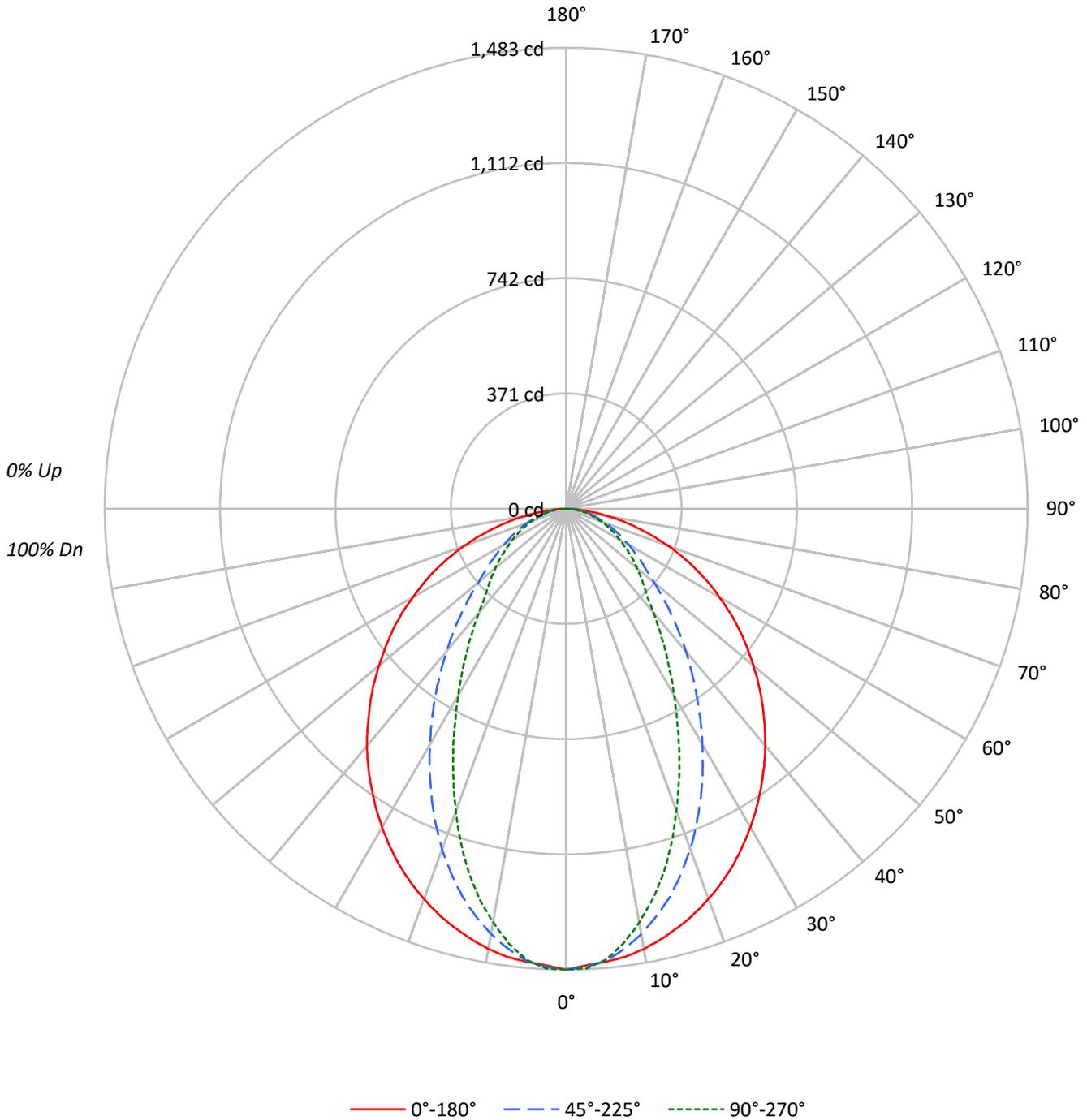
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2600.5 lumens  
Efficiency: N/A  
Efficacy: 98.5 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): 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									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°	17876	17876	17876
5°	17717	17677	17636
10°	17609	17012	16550
15°	17400	16113	15115
20°	17145	14955	13289
25°	16848	13617	11434
30°	16473	12181	9664
35°	16078	10772	8161
40°	15674	9408	6859
45°	15202	8113	6051
50°	14728	6906	5554
55°	14289	6155	5129
60°	13691	5563	4786
65°	13129	5092	4493
70°	12235	4692	4223
75°	10952	4341	3978
80°	9394	4006	3694
85°	6598	3680	3527

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 15202 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.4	5.3
10°-20°	363.6	14.0
20°-30°	479.0	18.4
30°-40°	486.2	18.7
40°-50°	422.6	16.3
50°-60°	331.1	12.7
60°-70°	225.0	8.7
70°-80°	121.9	4.7
80°-90°	33.6	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°	980.1	37.7
0°-40°	1466.3	56.4
0°-60°	2220.0	85.4
0°-90°	2600.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2600.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1483	1483	1483	1483	1483	
5°	1464	1482	1461	1447	1457	139
15°	1394	1374	1291	1228	1211	393
25°	1266	1190	1024	896	860	583
35°	1092	963	732	592	554	683
45°	892	715	476	367	355	688
55°	680	472	293	250	244	607
65°	460	255	178	160	158	454
75°	235	118	93	86	85	251
85°	48	29	27	24	26	60
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1482.7	1482.7	1482.7	1482.7	1482.7
2.5°	1470.5	1489.4	1475.0	1476.1	1480.5
5°	1463.9	1481.6	1460.6	1447.2	1457.2
7.5°	1453.9	1467.2	1428.4	1407.3	1410.6
10°	1438.4	1442.8	1389.6	1356.3	1351.9
12.5°	1417.3	1409.5	1343.0	1294.2	1286.4
15°	1394.0	1374.1	1290.9	1227.7	1211.0
17.5°	1367.4	1334.1	1229.9	1152.3	1126.7
20°	1336.3	1289.8	1165.6	1066.9	1035.8
22.5°	1303.1	1243.2	1095.7	979.2	947.1
25°	1266.5	1190.0	1023.6	896.1	859.5
27.5°	1226.6	1136.7	950.4	814.0	773.0
30°	1183.3	1081.3	875.0	734.2	694.2
32.5°	1138.9	1022.5	802.9	659.9	621.0
35°	1092.4	962.6	731.9	592.2	554.5
37.5°	1044.7	901.6	663.2	527.9	492.4
40°	995.9	839.5	597.8	468.0	435.8
42.5°	943.8	777.4	534.5	411.4	387.0
45°	891.6	715.3	475.8	367.1	354.9
47.5°	839.5	652.1	420.3	336.0	324.9
50°	785.2	591.1	368.2	307.2	296.1
52.5°	731.9	531.2	324.9	279.5	271.7
55°	679.8	472.4	292.8	249.5	244.0
57.5°	625.5	414.8	260.6	226.2	219.6
60°	567.8	359.3	230.7	201.8	198.5
62.5°	515.7	307.2	204.1	180.8	177.4
65°	460.2	255.1	178.5	159.7	157.5
67.5°	403.7	211.8	155.3	139.7	138.6
70°	347.1	178.5	133.1	120.9	119.8
72.5°	291.7	147.5	112.0	104.2	102.0
75°	235.1	117.6	93.2	86.5	85.4
77.5°	184.1	90.9	74.3	69.9	68.8
80°	135.3	67.6	57.7	54.3	53.2
82.5°	88.7	46.6	41.0	38.8	38.8
85°	47.7	28.8	26.6	24.4	25.5
87.5°	16.6	12.2	12.2	11.1	12.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)