

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: P1055579

Luminaire Tested: S123R3DR-S1165D835-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055579  
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-S1165D835-X4F0-XX-UDD-FLL-S  
Description: DEFINE 3, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

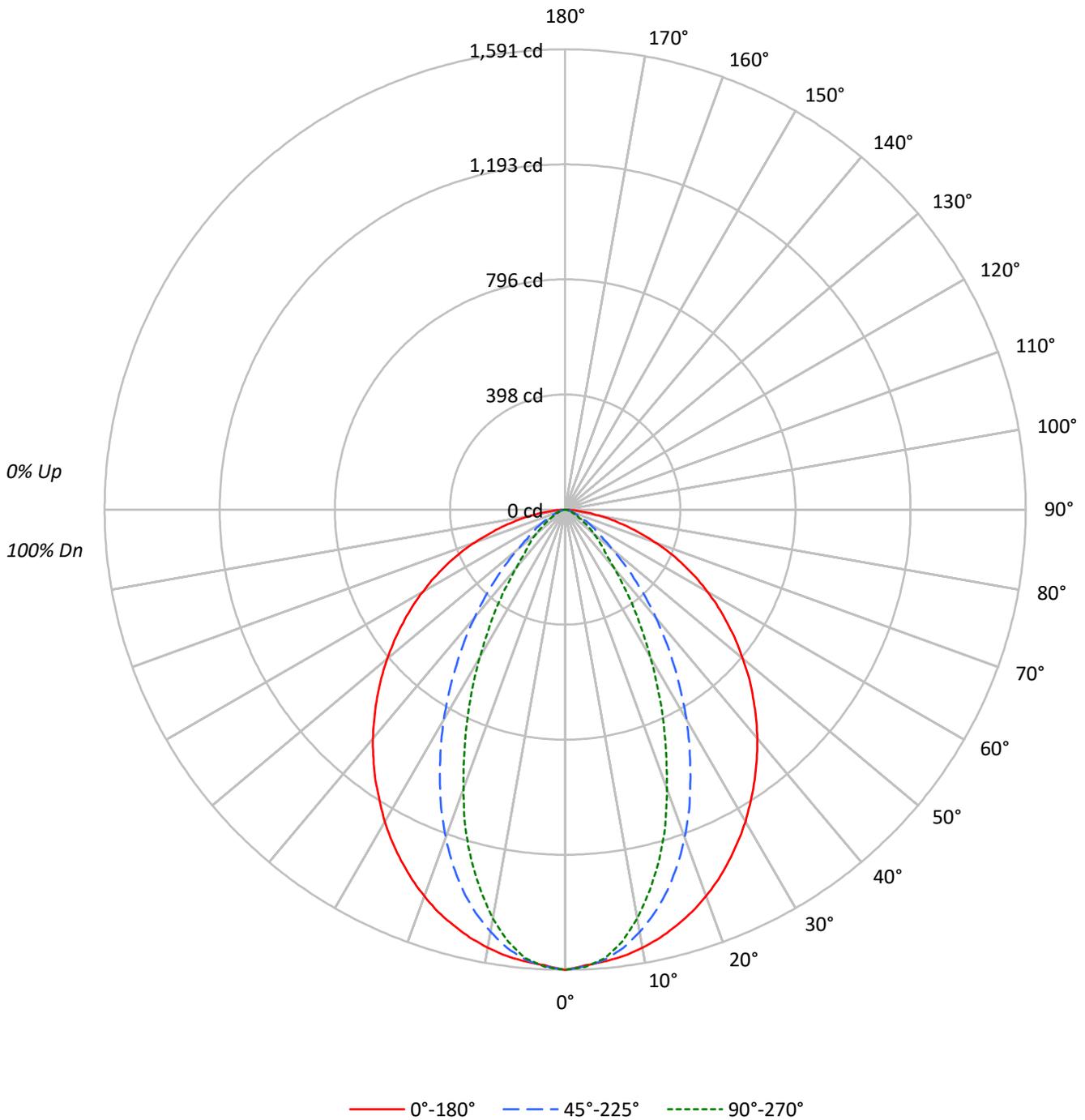
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2212.7 lumens  
Efficiency: N/A  
Efficacy: 52.8 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): 41.9  
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°	19183	19183	19183
5°	18983	18909	18854
10°	18832	18149	17578
15°	18579	17018	15643
20°	18247	15480	13178
25°	17815	13622	10633
30°	17342	11673	8189
35°	16804	9633	6059
40°	16259	7666	4130
45°	15661	5734	3112
50°	15020	3988	2433
55°	14361	2915	1776
60°	13674	2182	1273
65°	12863	1463	990
70°	11643	1065	797
75°	10048	773	634
80°	8061	625	521
85°	4178	622	415

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 15661 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	147.1	6.6
10°-20°	382.9	17.3
20°-30°	481.0	21.7
30°-40°	448.0	20.2
40°-50°	343.0	15.5
50°-60°	227.9	10.3
60°-70°	122.9	5.6
70°-80°	50.3	2.3
80°-90°	9.6	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°	1010.9	45.7
0°-40°	1459.0	65.9
0°-60°	2029.9	91.7
0°-90°	2212.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2212.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1591	1591	1591	1591	1591	
5°	1568	1585	1562	1556	1558	149
15°	1488	1464	1363	1283	1253	419
25°	1339	1249	1024	854	799	617
35°	1142	973	654	463	412	714
45°	918	679	336	198	182	709
55°	683	395	139	96	84	612
65°	451	152	51	38	35	446
75°	216	36	17	15	14	231
85°	30	4	4	4	3	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1591.1	1591.1	1591.1	1591.1	1591.1
2.5°	1577.5	1597.1	1580.5	1582.0	1582.0
5°	1568.5	1585.1	1562.4	1556.4	1557.9
7.5°	1556.4	1567.0	1529.3	1509.7	1506.6
10°	1538.3	1541.3	1482.5	1447.8	1435.8
12.5°	1515.7	1505.1	1428.2	1370.9	1348.3
15°	1488.5	1464.4	1363.4	1283.4	1253.3
17.5°	1458.4	1417.7	1289.5	1185.4	1149.2
20°	1422.2	1364.9	1206.5	1076.8	1027.1
22.5°	1383.0	1309.1	1119.0	965.2	909.4
25°	1339.2	1248.7	1024.0	853.6	799.3
27.5°	1294.0	1183.9	930.5	748.0	692.2
30°	1245.7	1117.5	838.5	645.5	588.2
32.5°	1192.9	1045.1	743.5	550.5	493.2
35°	1141.7	972.8	654.5	463.0	411.7
37.5°	1087.4	900.4	568.6	386.1	328.8
40°	1033.1	826.5	487.1	310.7	262.4
42.5°	975.8	752.6	410.2	247.3	209.6
45°	918.5	678.7	336.3	197.6	182.5
47.5°	861.2	604.8	271.5	170.4	155.3
50°	800.8	533.9	212.6	144.8	129.7
52.5°	743.5	463.0	165.9	119.1	105.6
55°	683.2	395.1	138.7	96.5	84.5
57.5°	627.4	325.8	114.6	75.4	66.4
60°	567.1	263.9	90.5	58.8	52.8
62.5°	509.8	206.6	69.4	46.8	42.2
65°	450.9	152.3	51.3	37.7	34.7
67.5°	392.1	110.1	39.2	30.2	28.7
70°	330.3	82.9	30.2	24.1	22.6
72.5°	271.5	58.8	22.6	19.6	18.1
75°	215.7	36.2	16.6	15.1	13.6
77.5°	165.9	21.1	12.1	12.1	10.6
80°	116.1	12.1	9.0	9.0	7.5
82.5°	70.9	7.5	6.0	6.0	6.0
85°	30.2	4.5	4.5	4.5	3.0
87.5°	4.5	1.5	1.5	1.5	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)