

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: P1055207

Luminaire Tested: S122R3DR-S485D850-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055207  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122R3DR-S485D850-X4F0-XX-UDD-FLL-S  
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

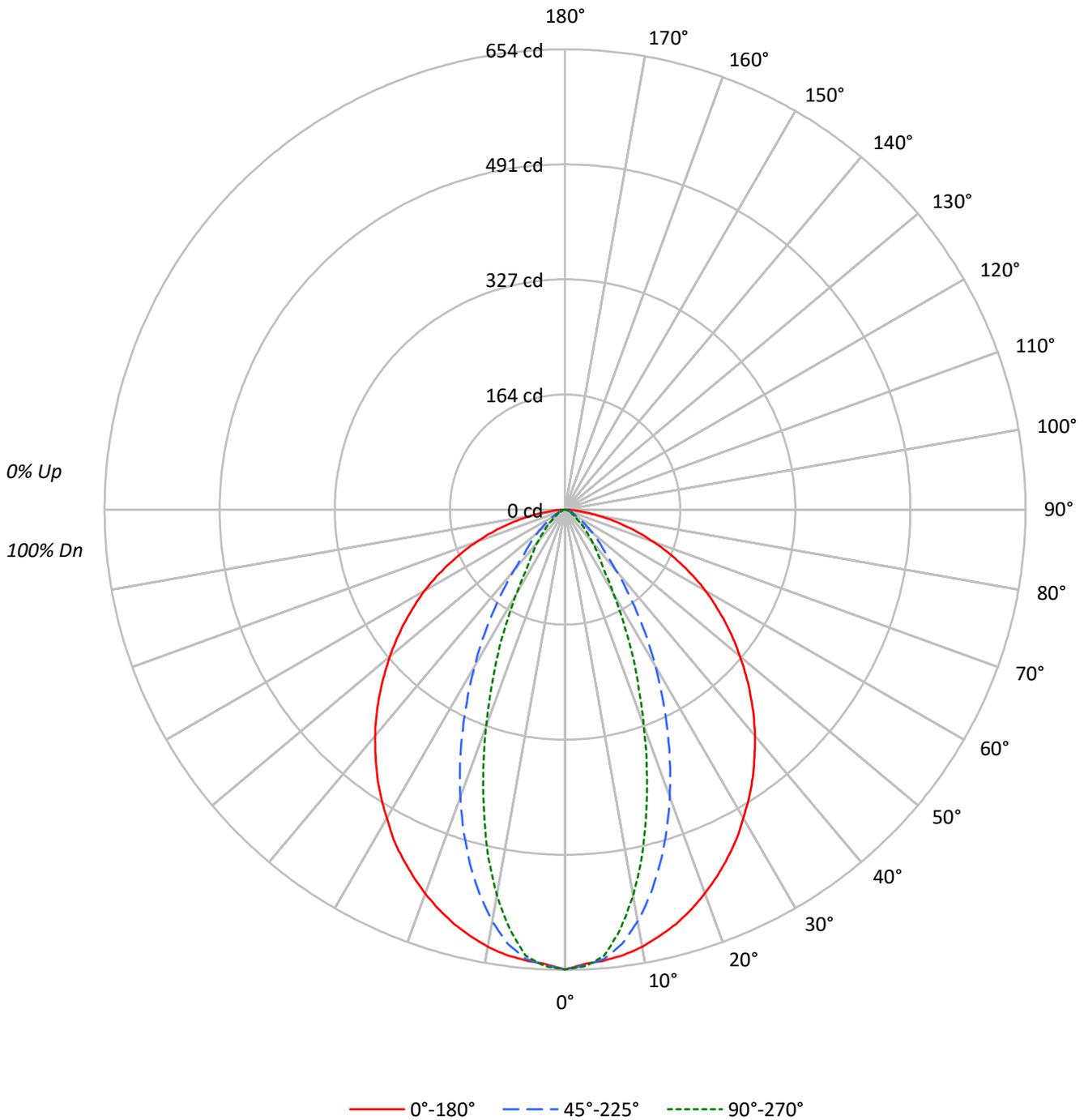
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 748.9 lumens  
Efficiency: N/A  
Efficacy: 39.2 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81  
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.1  
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				
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90				
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80				
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71				
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64				
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58				
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53				
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49				
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47	45				
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42				
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39				

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

	0°	45°	90°
0°	12381	12381	12381
5°	12231	12185	12109
10°	12141	11431	10708
15°	11955	10227	8734
20°	11706	8768	6587
25°	11418	7183	4703
30°	11072	5607	2995
35°	10743	4112	2001
40°	10378	2772	1506
45°	9978	1953	1072
50°	9559	1488	755
55°	9153	1031	555
60°	8708	697	455
65°	8078	502	359
70°	7362	399	310
75°	6390	351	234
80°	5062	262	262
85°	2782	348	174

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9978 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.7	8.0
10°-20°	146.6	19.6
20°-30°	167.5	22.4
30°-40°	142.1	19.0
40°-50°	106.0	14.2
50°-60°	68.5	9.1
60°-70°	38.2	5.1
70°-80°	16.8	2.2
80°-90°	3.5	0.5
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°	373.9	49.9
0°-40°	516.0	68.9
0°-60°	690.5	92.2
0°-90°	748.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	748.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	654	654	654	654	654	
5°	643	651	641	634	637	61
15°	610	594	521	466	445	172
25°	546	482	344	252	225	251
35°	464	350	178	97	86	290
45°	372	221	73	47	40	287
55°	277	105	31	19	17	248
65°	180	38	11	9	8	179
75°	87	8	5	4	3	93
85°	13	1	2	1	1	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	653.5	653.5	653.5	653.5	653.5
2.5°	646.3	655.9	647.9	647.9	649.5
5°	643.1	651.1	640.7	634.3	636.7
7.5°	638.3	643.9	622.3	603.0	601.4
10°	631.1	633.5	594.2	564.6	556.6
12.5°	620.7	615.1	559.8	518.2	504.5
15°	609.5	594.2	521.4	466.1	445.3
17.5°	595.8	568.6	478.9	411.6	386.0
20°	580.6	542.2	434.9	354.8	326.7
22.5°	563.8	512.5	389.2	301.1	273.1
25°	546.2	482.1	343.6	251.5	225.0
27.5°	527.8	450.1	298.7	206.6	177.8
30°	506.1	417.2	256.3	163.4	136.9
32.5°	486.1	382.8	217.0	126.5	104.1
35°	464.5	350.0	177.8	96.9	86.5
37.5°	442.1	317.1	143.4	81.7	72.9
40°	419.6	284.3	112.1	68.9	60.9
42.5°	396.4	252.3	86.5	57.7	49.7
45°	372.4	221.0	72.9	47.3	40.0
47.5°	348.4	189.8	60.9	37.6	32.0
50°	324.3	160.2	50.5	29.6	25.6
52.5°	301.1	132.1	40.0	24.0	20.8
55°	277.1	104.9	31.2	19.2	16.8
57.5°	253.1	81.7	24.0	16.0	14.4
60°	229.8	61.7	18.4	12.8	12.0
62.5°	205.8	49.7	14.4	10.4	9.6
65°	180.2	38.4	11.2	8.8	8.0
67.5°	157.0	28.0	8.8	7.2	6.4
70°	132.9	19.2	7.2	6.4	5.6
72.5°	109.7	12.0	5.6	4.8	4.8
75°	87.3	8.0	4.8	4.0	3.2
77.5°	66.5	4.8	3.2	3.2	2.4
80°	46.4	3.2	2.4	2.4	2.4
82.5°	28.8	2.4	1.6	1.6	1.6
85°	12.8	0.8	1.6	0.8	0.8
87.5°	2.4	0.8	0.8	0.8	0.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)