

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: P1055206

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

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055206  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-2)  
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-B  
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

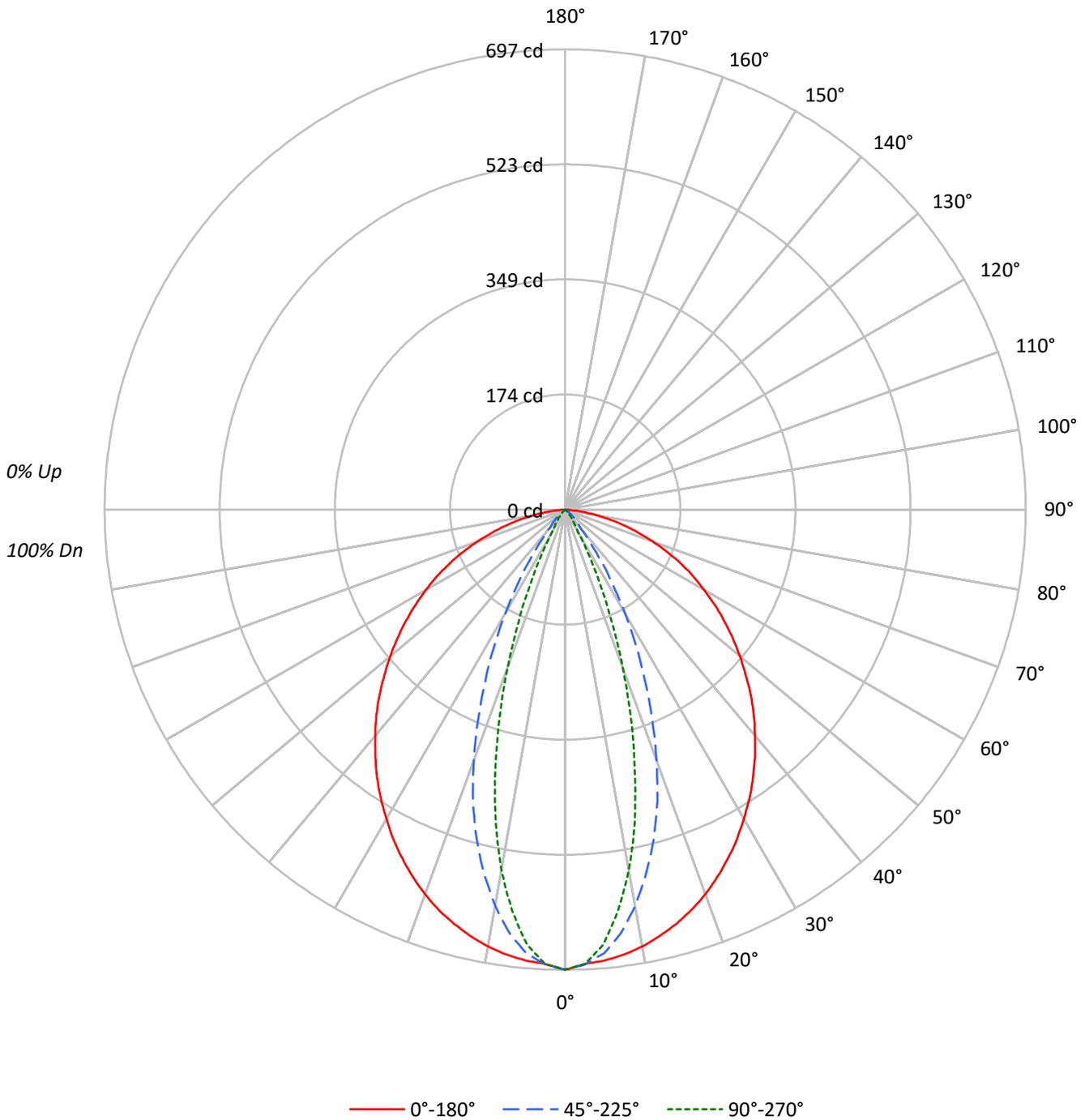
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 633.9 lumens  
Efficiency: N/A  
Efficacy: 33.2 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	106	104	101	102	100	98	99	97	95	95	94	92	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	66	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	62	59	66	62	58	56
7	77	67	60	55	76	66	59	55	65	59	55	63	58	54	62	57	54	52
8	73	62	56	51	72	62	55	51	61	55	51	60	54	50	59	54	50	49
9	70	59	52	48	68	58	52	47	57	51	47	56	51	47	55	50	47	45
10	66	55	49	45	65	55	49	44	54	48	44	53	48	44	52	48	44	43

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

	0°	45°	90°
0°	13200	13200	13200
5°	13037	12824	12581
10°	12926	11726	10677
15°	12739	10148	7995
20°	12498	8153	5119
25°	12187	5977	2628
30°	11827	3907	858
35°	11465	2167	500
40°	11053	871	277
45°	10642	579	107
50°	10175	330	47
55°	9708	159	26
60°	9196	61	0
65°	8652	36	0
70°	7766	44	0
75°	6683	59	0
80°	5062	0	0
85°	2087	174	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10642 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.5	9.9
10°-20°	145.1	22.9
20°-30°	147.3	23.2
30°-40°	110.6	17.4
40°-50°	77.4	12.2
50°-60°	47.4	7.5
60°-70°	28.2	4.5
70°-80°	13.0	2.1
80°-90°	2.3	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°	354.9	56.0
0°-40°	465.5	73.4
0°-60°	590.3	93.1
0°-90°	633.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	633.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	697	697	697	697	697	
5°	686	692	674	662	662	65
15°	650	614	517	438	408	183
25°	583	480	286	163	126	268
35°	496	323	94	28	22	310
45°	397	171	22	6	4	306
55°	294	52	5	2	1	263
65°	193	15	1	1	0	190
75°	91	2	1	1	0	97
85°	10	0	1	1	0	16
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	696.7	696.7	696.7	696.7	696.7
2.5°	688.7	699.2	689.5	687.9	688.7
5°	685.5	691.9	674.3	661.5	661.5
7.5°	679.9	679.9	647.1	620.7	612.7
10°	671.9	663.1	609.5	567.0	555.0
12.5°	661.5	640.7	565.4	505.3	486.1
15°	649.5	614.3	517.4	438.1	407.6
17.5°	635.9	584.6	463.7	365.2	330.0
20°	619.9	552.6	404.4	290.7	253.9
22.5°	602.2	517.4	344.4	224.2	185.0
25°	583.0	480.5	285.9	163.4	125.7
27.5°	563.0	442.1	232.2	112.1	76.9
30°	540.6	402.0	178.6	66.5	39.2
32.5°	519.0	363.6	133.7	36.0	28.8
35°	495.7	322.7	93.7	28.0	21.6
37.5°	471.7	284.3	57.7	20.8	16.0
40°	446.9	245.1	35.2	15.2	11.2
42.5°	422.9	208.2	28.0	10.4	7.2
45°	397.2	170.6	21.6	6.4	4.0
47.5°	370.8	136.1	16.0	4.0	2.4
50°	345.2	105.7	11.2	2.4	1.6
52.5°	319.5	77.7	7.2	1.6	0.8
55°	293.9	52.1	4.8	1.6	0.8
57.5°	268.3	36.8	3.2	0.8	0.8
60°	242.7	28.8	1.6	0.8	0.0
62.5°	218.6	22.4	1.6	0.8	0.8
65°	193.0	15.2	0.8	0.8	0.0
67.5°	165.8	9.6	0.8	0.8	0.0
70°	140.2	5.6	0.8	0.8	0.0
72.5°	115.3	3.2	0.8	0.8	0.0
75°	91.3	1.6	0.8	0.8	0.0
77.5°	68.1	0.8	0.0	0.8	0.0
80°	46.4	0.0	0.0	0.8	0.0
82.5°	27.2	0.0	0.0	0.8	0.0
85°	9.6	0.0	0.8	0.8	0.0
87.5°	0.0	0.0	0.8	0.8	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)