

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: P1055200

Luminaire Tested: S122R3DR-S485D835-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055200  
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-S485D835-X4F0-XX-UDD-FLL-B  
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

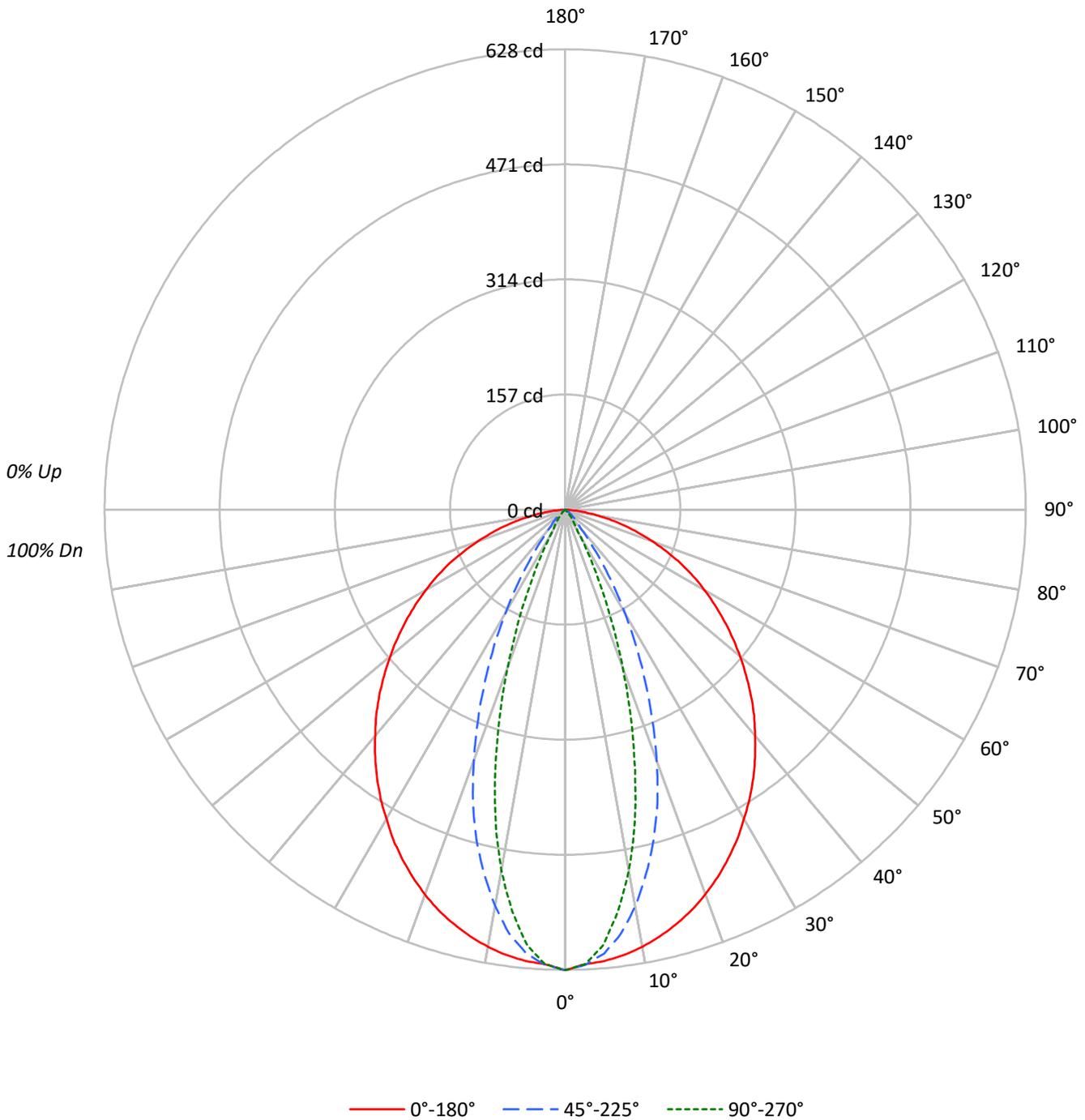
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 571.5 lumens  
Efficiency: N/A  
Efficacy: 29.9 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

TEST NUMBER: P1055200

CATALOG NUMBER: S122R3DR-S485D835-X4F0-XX-UDD-FLL-B

### Luminous Intensity Polar Plot





TEST NUMBER: P1055200

CATALOG NUMBER: S122R3DR-S485D835-X4F0-XX-UDD-FLL-B

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	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	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	112	109	106	103	110	106	104	101	102	100	98	99	97	95	95	94	92	91						91														
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	81						81														
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74						74														
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67						67														
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	66	63	61						61														
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	56						56														
7	77	67	60	55	76	66	59	55	65	59	55	63	58	54	62	57	54	52						52														
8	73	62	56	51	72	62	55	51	61	55	51	60	54	50	59	54	50	49						49														
9	70	59	52	48	68	58	52	47	57	51	47	56	51	47	55	50	47	45						45														
10	66	55	49	45	65	55	49	44	54	48	44	53	48	44	52	48	44	43						43														

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

	0°	45°	90°
0°	11904	11904	11904
5°	11757	11563	11344
10°	11656	10573	9627
15°	11488	9150	7210
20°	11268	7353	4615
25°	10989	5389	2371
30°	10663	3522	774
35°	10338	1954	451
40°	9967	786	250
45°	9597	522	96
50°	9172	298	41
55°	8753	142	23
60°	8291	53	0
65°	7800	31	0
70°	7002	39	0
75°	6024	51	0
80°	4571	0	0
85°	1891	152	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9597 cd/sqm



TEST NUMBER: P1055200

CATALOG NUMBER: S122R3DR-S485D835-X4F0-XX-UDD-FLL-B

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.3	9.9
10°-20°	130.9	22.9
20°-30°	132.9	23.2
30°-40°	99.7	17.4
40°-50°	69.8	12.2
50°-60°	42.7	7.5
60°-70°	25.4	4.5
70°-80°	11.7	2.1
80°-90°	2.1	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°	320.1	56.0
0°-40°	419.8	73.4
0°-60°	532.3	93.1
0°-90°	571.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	571.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	628	628	628	628	628	
5°	618	624	608	596	596	59
15°	586	554	466	395	368	165
25°	526	433	258	147	113	242
35°	447	291	84	25	20	279
45°	358	154	20	6	4	276
55°	265	47	4	1	1	237
65°	174	14	1	1	0	171
75°	82	1	1	1	0	87
85°	9	0	1	1	0	15
90°	0	0	0	0	0	



TEST NUMBER: P1055200

CATALOG NUMBER: S122R3DR-S485D835-X4F0-XX-UDD-FLL-B

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	628.3	628.3	628.3	628.3	628.3
2.5°	621.0	630.4	621.8	620.3	621.0
5°	618.2	623.9	608.0	596.5	596.5
7.5°	613.1	613.1	583.5	559.7	552.4
10°	605.9	597.9	549.6	511.3	500.4
12.5°	596.5	577.7	509.8	455.7	438.3
15°	585.7	553.9	466.5	395.0	367.6
17.5°	573.4	527.2	418.1	329.3	297.5
20°	558.9	498.3	364.7	262.1	228.9
22.5°	543.1	466.5	310.5	202.2	166.8
25°	525.7	433.3	257.8	147.3	113.4
27.5°	507.7	398.6	209.4	101.1	69.3
30°	487.4	362.5	161.0	59.9	35.4
32.5°	468.0	327.9	120.6	32.5	26.0
35°	447.0	291.0	84.5	25.3	19.5
37.5°	425.3	256.4	52.0	18.8	14.4
40°	403.0	221.0	31.8	13.7	10.1
42.5°	381.3	187.8	25.3	9.4	6.5
45°	358.2	153.8	19.5	5.8	3.6
47.5°	334.4	122.8	14.4	3.6	2.2
50°	311.2	95.3	10.1	2.2	1.4
52.5°	288.1	70.0	6.5	1.4	0.7
55°	265.0	46.9	4.3	1.4	0.7
57.5°	241.9	33.2	2.9	0.7	0.7
60°	218.8	26.0	1.4	0.7	0.0
62.5°	197.1	20.2	1.4	0.7	0.7
65°	174.0	13.7	0.7	0.7	0.0
67.5°	149.5	8.7	0.7	0.7	0.0
70°	126.4	5.1	0.7	0.7	0.0
72.5°	104.0	2.9	0.7	0.7	0.0
75°	82.3	1.4	0.7	0.7	0.0
77.5°	61.4	0.7	0.0	0.7	0.0
80°	41.9	0.0	0.0	0.7	0.0
82.5°	24.6	0.0	0.0	0.7	0.0
85°	8.7	0.0	0.7	0.7	0.0
87.5°	0.0	0.0	0.7	0.7	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)