

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: P1055197

Luminaire Tested: S122R3DR-S485D830-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055197  
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-S485D830-X4F0-XX-UDD-FLL-B  
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

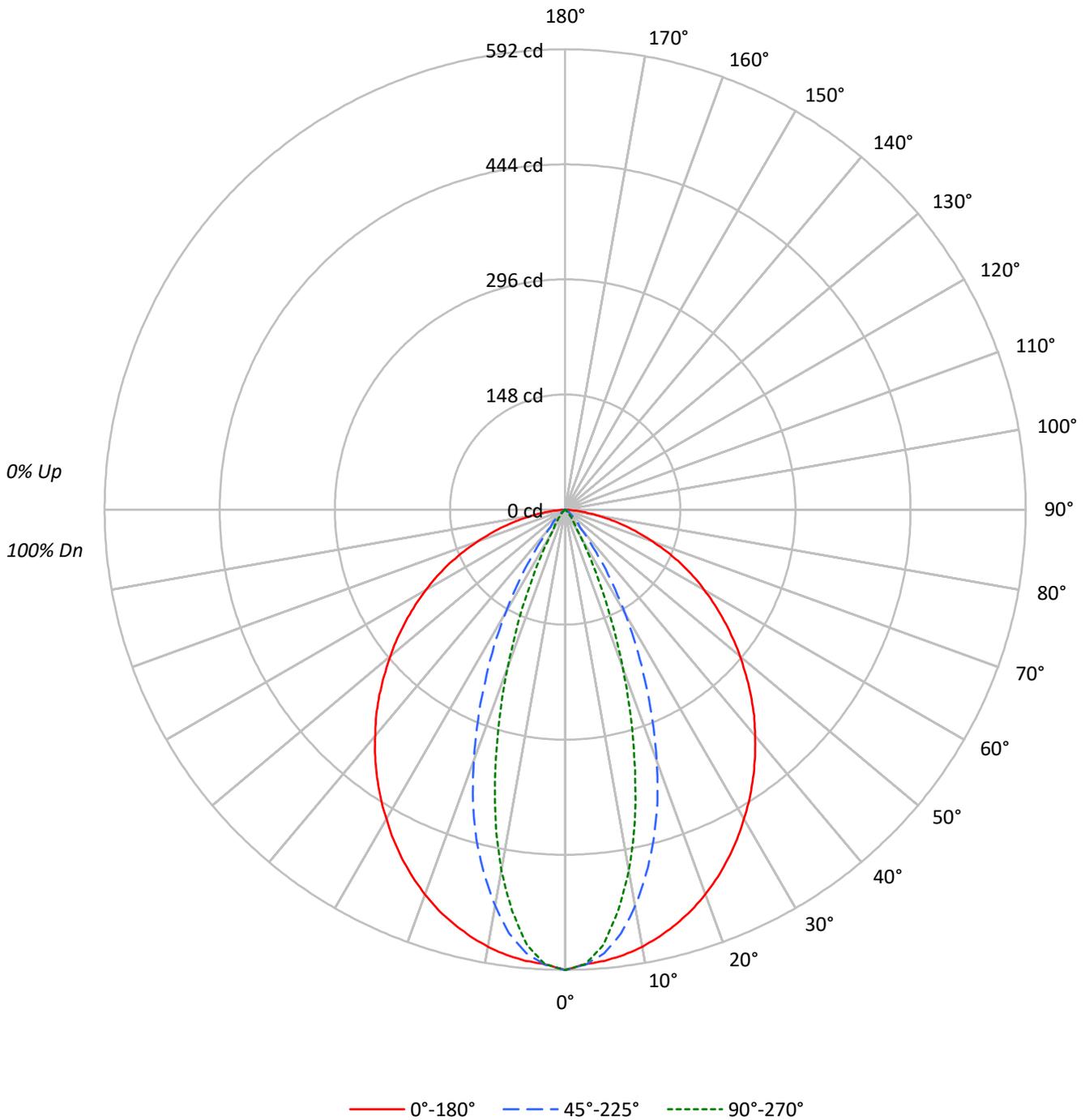
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 538.8 lumens  
Efficiency: N/A  
Efficacy: 28.2 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	47	44	43

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

	0°	45°	90°
0°	11220	11220	11220
5°	11080	10899	10692
10°	10987	9965	9075
15°	10827	8624	6796
20°	10621	6930	4351
25°	10358	5080	2235
30°	10050	3321	731
35°	9744	1841	426
40°	9393	739	235
45°	9045	493	91
50°	8648	280	41
55°	8251	135	23
60°	7813	53	0
65°	7352	31	0
70°	6597	39	0
75°	5680	51	0
80°	4310	0	0
85°	1783	152	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9045 cd/sqm



TEST NUMBER: P1055197

CATALOG NUMBER: S122R3DR-S485D830-X4F0-XX-UDD-FLL-B

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.1	9.9
10°-20°	123.3	22.9
20°-30°	125.2	23.2
30°-40°	94.0	17.4
40°-50°	65.8	12.2
50°-60°	40.3	7.5
60°-70°	24.0	4.5
70°-80°	11.1	2.1
80°-90°	2.0	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°	301.7	56.0
0°-40°	395.6	73.4
0°-60°	501.7	93.1
0°-90°	538.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	538.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	592	592	592	592	592	
5°	583	588	573	562	562	55
15°	552	522	440	372	346	156
25°	496	408	243	139	107	228
35°	421	274	80	24	18	263
45°	338	145	18	5	3	260
55°	250	44	4	1	1	223
65°	164	13	1	1	0	162
75°	78	1	1	1	0	82
85°	8	0	1	1	0	14
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	592.2	592.2	592.2	592.2	592.2
2.5°	585.4	594.2	586.0	584.7	585.4
5°	582.6	588.1	573.1	562.2	562.2
7.5°	577.9	577.9	550.0	527.5	520.7
10°	571.1	563.6	518.0	481.9	471.7
12.5°	562.2	544.5	480.5	429.5	413.2
15°	552.0	522.1	439.7	372.3	346.5
17.5°	540.4	496.9	394.1	310.4	280.4
20°	526.8	469.7	343.7	247.1	215.8
22.5°	511.9	439.7	292.7	190.6	157.2
25°	495.5	408.4	243.0	138.9	106.9
27.5°	478.5	375.7	197.4	95.3	65.3
30°	459.4	341.7	151.8	56.5	33.4
32.5°	441.1	309.0	113.7	30.6	24.5
35°	421.3	274.3	79.6	23.8	18.4
37.5°	400.9	241.6	49.0	17.7	13.6
40°	379.8	208.3	29.9	12.9	9.5
42.5°	359.4	177.0	23.8	8.8	6.1
45°	337.6	145.0	18.4	5.4	3.4
47.5°	315.1	115.7	13.6	3.4	2.0
50°	293.4	89.8	9.5	2.0	1.4
52.5°	271.6	66.0	6.1	1.4	0.7
55°	249.8	44.2	4.1	1.4	0.7
57.5°	228.0	31.3	2.7	0.7	0.7
60°	206.2	24.5	1.4	0.7	0.0
62.5°	185.8	19.1	1.4	0.7	0.7
65°	164.0	12.9	0.7	0.7	0.0
67.5°	140.9	8.2	0.7	0.7	0.0
70°	119.1	4.8	0.7	0.7	0.0
72.5°	98.0	2.7	0.7	0.7	0.0
75°	77.6	1.4	0.7	0.7	0.0
77.5°	57.9	0.7	0.0	0.7	0.0
80°	39.5	0.0	0.0	0.7	0.0
82.5°	23.1	0.0	0.0	0.7	0.0
85°	8.2	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)