

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: P1055178

Luminaire Tested: S122R3DR-S290D840-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055178  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122R3DR-S290D840-X4F0-XX-UDD-FLL-W  
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

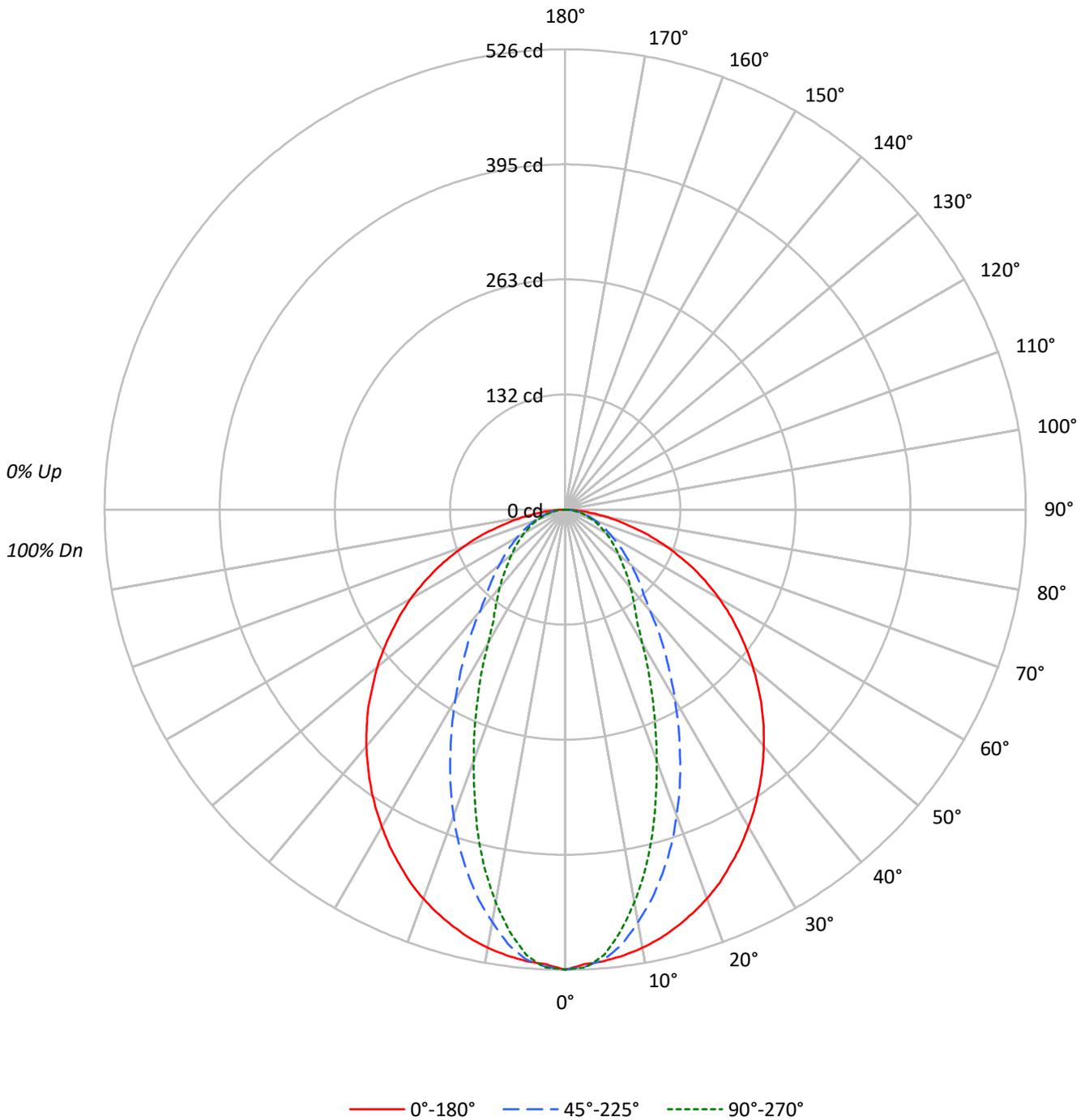
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 795.1 lumens  
Efficiency: N/A  
Efficacy: 63.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.71 / 0.9  
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 12.6  
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	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87				
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75				
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66				
4	87	76	69	63	85	75	68	62	73	66	61	71	65	61	68	64	60	58				
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54	52				
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42				
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				
9	62	50	43	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35				
10	59	47	39	35	58	46	39	34	45	39	34	44	38	34	43	38	34	32				

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

	0°	45°	90°
0°	9960	9960	9960
5°	9848	9813	9722
10°	9785	9209	8769
15°	9674	8440	7544
20°	9545	7506	6159
25°	9355	6487	4917
30°	9155	5480	3837
35°	8946	4584	3222
40°	8730	3717	2869
45°	8504	3250	2567
50°	8253	2877	2346
55°	7970	2600	2177
60°	7696	2364	2031
65°	7330	2170	1910
70°	6791	2022	1800
75°	6017	1837	1706
80°	5128	1724	1582
85°	3543	1522	1435

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8504 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.2	6.1
10°-20°	121.6	15.3
20°-30°	149.9	18.8
30°-40°	143.8	18.1
40°-50°	124.0	15.6
50°-60°	96.2	12.1
60°-70°	65.9	8.3
70°-80°	35.8	4.5
80°-90°	9.8	1.2
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°	319.7	40.2
0°-40°	463.5	58.3
0°-60°	683.7	86.0
0°-90°	795.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	795.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	526	526	526	526	526	
5°	518	525	516	509	511	49
15°	493	478	430	395	385	139
25°	448	400	310	253	235	206
35°	387	307	198	148	139	242
45°	317	214	121	100	96	245
55°	241	128	79	68	66	216
65°	164	70	48	44	43	161
75°	82	32	25	24	23	88
85°	16	8	7	7	7	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	525.7	525.7	525.7	525.7	525.7
2.5°	520.0	528.8	522.6	522.6	523.9
5°	517.8	525.3	516.0	509.4	511.2
7.5°	513.8	519.1	500.7	486.6	486.1
10°	508.6	509.0	478.7	460.2	455.8
12.5°	502.0	494.9	456.3	428.6	422.0
15°	493.2	478.2	430.3	395.2	384.6
17.5°	483.9	461.1	402.6	358.7	344.2
20°	473.4	440.4	372.3	322.2	305.5
22.5°	461.5	420.7	342.0	287.0	269.4
25°	447.5	399.6	310.3	253.2	235.2
27.5°	433.8	378.0	280.0	223.3	204.8
30°	418.5	354.7	250.5	194.7	175.4
32.5°	403.1	331.0	223.3	167.5	153.0
35°	386.8	306.8	198.2	147.7	139.3
37.5°	370.1	283.1	174.5	134.5	127.0
40°	353.0	259.3	150.3	121.8	116.0
42.5°	335.4	236.0	133.6	111.2	105.9
45°	317.4	213.6	121.3	100.2	95.8
47.5°	298.0	191.2	109.4	91.0	87.0
50°	280.0	169.7	97.6	82.6	79.6
52.5°	260.7	148.6	87.9	75.2	72.5
55°	241.3	128.3	78.7	68.1	65.9
57.5°	222.4	109.0	69.9	61.5	59.8
60°	203.1	93.6	62.4	55.4	53.6
62.5°	183.3	81.3	55.4	49.7	47.9
65°	163.5	69.9	48.4	44.0	42.6
67.5°	142.9	58.9	42.2	38.7	37.8
70°	122.6	49.2	36.5	33.4	32.5
72.5°	102.9	40.0	30.8	28.6	27.7
75°	82.2	32.1	25.1	23.7	23.3
77.5°	64.2	25.1	20.2	19.3	18.9
80°	47.0	18.5	15.8	14.9	14.5
82.5°	31.2	12.7	11.4	11.0	10.5
85°	16.3	7.9	7.0	7.0	6.6
87.5°	5.3	3.5	3.5	3.5	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)