

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: P1055170

Luminaire Tested: S122R3DR-S290D830-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055170
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-S290D830-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: -

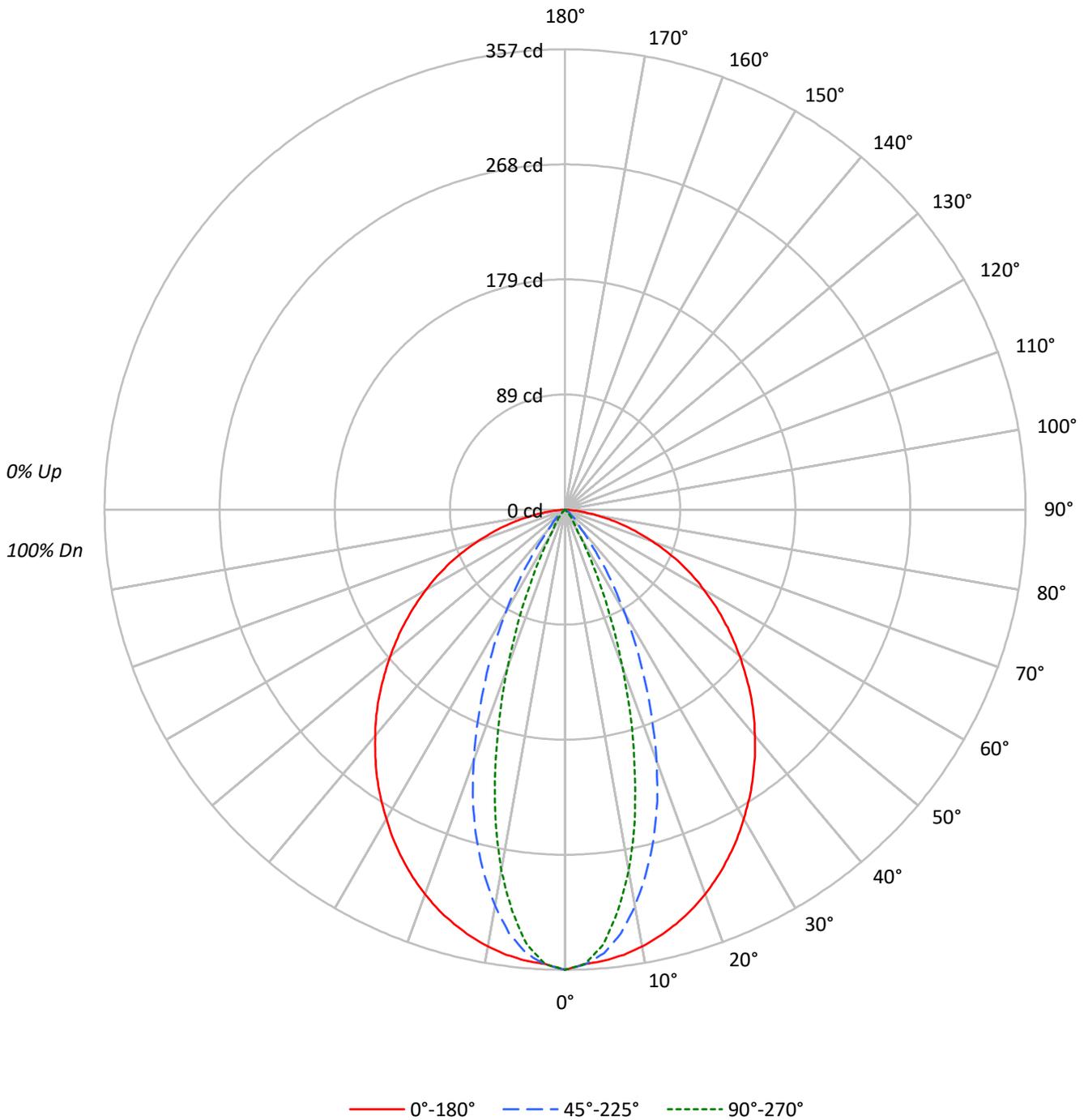
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 324.7 lumens
Efficiency: N/A
Efficacy: 25.8 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): 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	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	63	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°	6762	6762	6762
5°	6679	6569	6445
10°	6622	6006	5469
15°	6526	5198	4095
20°	6401	4178	2621
25°	6244	3062	1346
30°	6058	2002	440
35°	5872	1110	257
40°	5661	448	141
45°	5452	297	56
50°	5211	168	24
55°	4974	83	13
60°	4710	30	0
65°	4434	18	0
70°	3977	22	0
75°	3426	29	0
80°	2597	0	0
85°	1065	87	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5452 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.0	9.9
10°-20°	74.3	22.9
20°-30°	75.5	23.2
30°-40°	56.6	17.4
40°-50°	39.7	12.2
50°-60°	24.3	7.5
60°-70°	14.5	4.5
70°-80°	6.7	2.1
80°-90°	1.2	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°	181.8	56.0
0°-40°	238.5	73.4
0°-60°	302.4	93.1
0°-90°	324.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	324.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	357	357	357	357	357	
5°	351	354	345	339	339	33
15°	333	315	265	224	209	94
25°	299	246	146	84	64	137
35°	254	165	48	14	11	159
45°	204	87	11	3	2	157
55°	151	27	2	1	0	135
65°	99	8	0	0	0	97
75°	47	1	0	0	0	50
85°	5	0	0	0	0	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	356.9	356.9	356.9	356.9	356.9
2.5°	352.8	358.2	353.2	352.4	352.8
5°	351.2	354.5	345.4	338.9	338.9
7.5°	348.3	348.3	331.5	317.9	313.8
10°	344.2	339.7	312.2	290.5	284.3
12.5°	338.9	328.2	289.6	258.9	249.0
15°	332.7	314.7	265.0	224.4	208.8
17.5°	325.7	299.5	237.5	187.1	169.0
20°	317.5	283.1	207.2	148.9	130.0
22.5°	308.5	265.0	176.4	114.9	94.8
25°	298.7	246.2	146.5	83.7	64.4
27.5°	288.4	226.5	119.0	57.4	39.4
30°	276.9	205.9	91.5	34.1	20.1
32.5°	265.8	186.3	68.5	18.5	14.8
35°	253.9	165.3	48.0	14.4	11.1
37.5°	241.6	145.6	29.5	10.7	8.2
40°	228.9	125.5	18.1	7.8	5.7
42.5°	216.6	106.7	14.4	5.3	3.7
45°	203.5	87.4	11.1	3.3	2.1
47.5°	189.9	69.7	8.2	2.1	1.2
50°	176.8	54.2	5.7	1.2	0.8
52.5°	163.7	39.8	3.7	0.8	0.4
55°	150.6	26.7	2.5	0.8	0.4
57.5°	137.4	18.9	1.6	0.4	0.4
60°	124.3	14.8	0.8	0.4	0.0
62.5°	112.0	11.5	0.8	0.4	0.4
65°	98.9	7.8	0.4	0.4	0.0
67.5°	84.9	4.9	0.4	0.4	0.0
70°	71.8	2.9	0.4	0.4	0.0
72.5°	59.1	1.6	0.4	0.4	0.0
75°	46.8	0.8	0.4	0.4	0.0
77.5°	34.9	0.4	0.0	0.4	0.0
80°	23.8	0.0	0.0	0.4	0.0
82.5°	13.9	0.0	0.0	0.4	0.0
85°	4.9	0.0	0.4	0.4	0.0
87.5°	0.0	0.0	0.4	0.4	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)