

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: P1055179

Luminaire Tested: S122R3DR-S290D850-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055179
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-S290D850-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: -

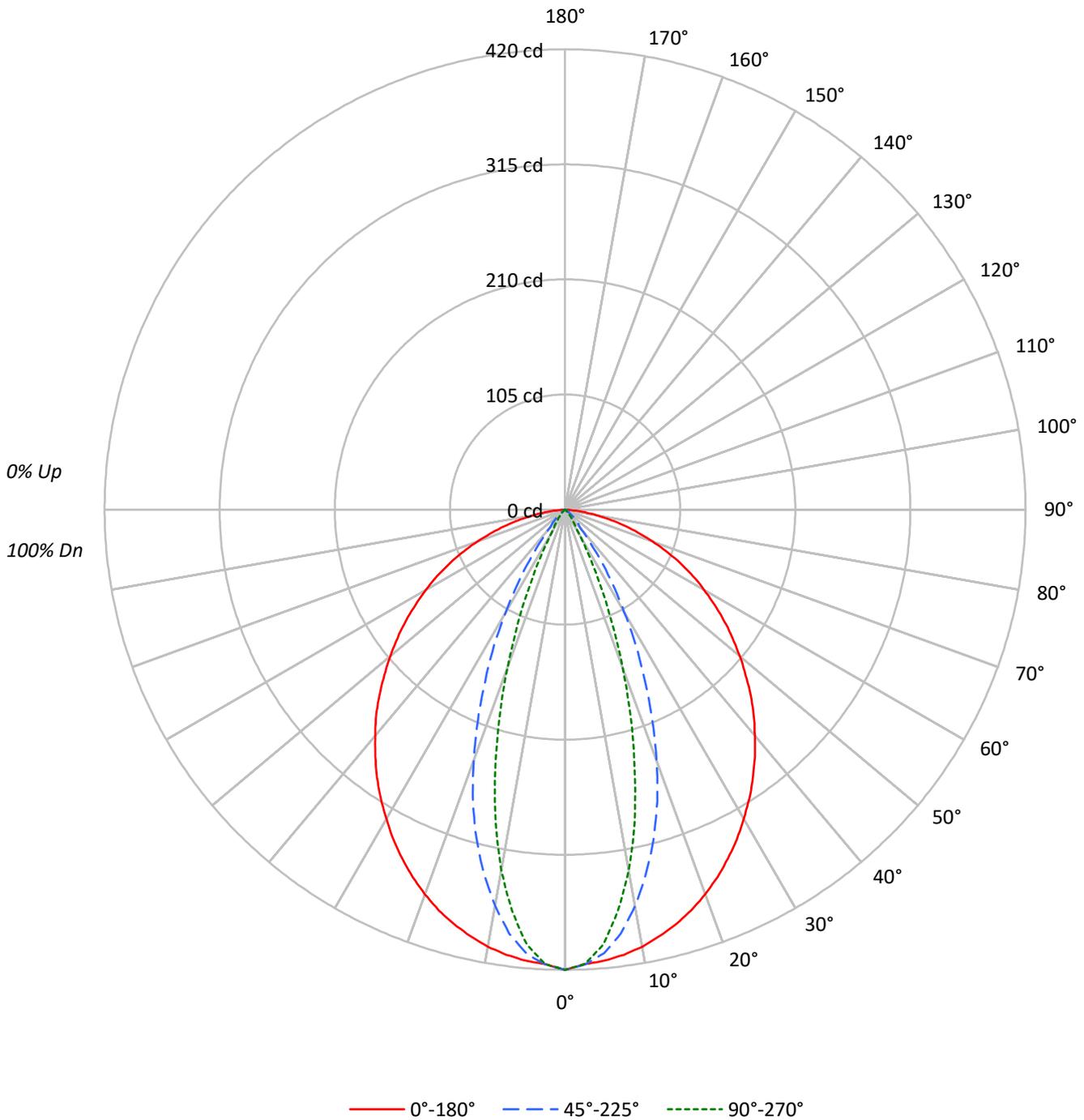
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 382.1 lumens
Efficiency: N/A
Efficacy: 30.3 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	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°	7957	7957	7957
5°	7858	7729	7583
10°	7791	7066	6435
15°	7679	6116	4819
20°	7532	4915	3085
25°	7346	3602	1585
30°	7127	2354	518
35°	6911	1307	301
40°	6660	524	168
45°	6414	348	64
50°	6131	200	29
55°	5853	96	17
60°	5544	38	0
65°	5214	22	0
70°	4681	28	0
75°	4026	37	0
80°	3055	0	0
85°	1261	109	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6414 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.6	9.9
10°-20°	87.5	22.9
20°-30°	88.8	23.2
30°-40°	66.6	17.4
40°-50°	46.7	12.2
50°-60°	28.6	7.5
60°-70°	17.0	4.5
70°-80°	7.9	2.1
80°-90°	1.4	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°	213.9	56.0
0°-40°	280.6	73.4
0°-60°	355.8	93.1
0°-90°	382.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	382.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	420	420	420	420	420	
5°	413	417	406	399	399	39
15°	392	370	312	264	246	110
25°	351	290	172	98	76	162
35°	299	194	56	17	13	187
45°	239	103	13	4	2	185
55°	177	31	3	1	0	158
65°	116	9	0	0	0	115
75°	55	1	0	0	0	58
85°	6	0	0	0	0	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	420.0	420.0	420.0	420.0	420.0
2.5°	415.1	421.4	415.6	414.6	415.1
5°	413.2	417.1	406.4	398.7	398.7
7.5°	409.8	409.8	390.0	374.1	369.3
10°	405.0	399.7	367.3	341.8	334.5
12.5°	398.7	386.2	340.8	304.6	293.0
15°	391.5	370.2	311.8	264.0	245.7
17.5°	383.3	352.4	279.5	220.1	198.9
20°	373.6	333.1	243.8	175.2	153.0
22.5°	363.0	311.8	207.6	135.2	111.5
25°	351.4	289.6	172.3	98.5	75.8
27.5°	339.3	266.5	140.0	67.6	46.3
30°	325.8	242.3	107.6	40.1	23.7
32.5°	312.8	219.1	80.6	21.7	17.4
35°	298.8	194.5	56.5	16.9	13.0
37.5°	284.3	171.4	34.8	12.6	9.7
40°	269.3	147.7	21.2	9.2	6.8
42.5°	254.9	125.5	16.9	6.3	4.3
45°	239.4	102.8	13.0	3.9	2.4
47.5°	223.5	82.1	9.7	2.4	1.4
50°	208.0	63.7	6.8	1.4	1.0
52.5°	192.6	46.8	4.3	1.0	0.5
55°	177.2	31.4	2.9	1.0	0.5
57.5°	161.7	22.2	1.9	0.5	0.5
60°	146.3	17.4	1.0	0.5	0.0
62.5°	131.8	13.5	1.0	0.5	0.5
65°	116.3	9.2	0.5	0.5	0.0
67.5°	99.9	5.8	0.5	0.5	0.0
70°	84.5	3.4	0.5	0.5	0.0
72.5°	69.5	1.9	0.5	0.5	0.0
75°	55.0	1.0	0.5	0.5	0.0
77.5°	41.0	0.5	0.0	0.5	0.0
80°	28.0	0.0	0.0	0.5	0.0
82.5°	16.4	0.0	0.0	0.5	0.0
85°	5.8	0.0	0.5	0.5	0.0
87.5°	0.0	0.0	0.5	0.5	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)