

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: P1055180

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055180
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-3)
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-S
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

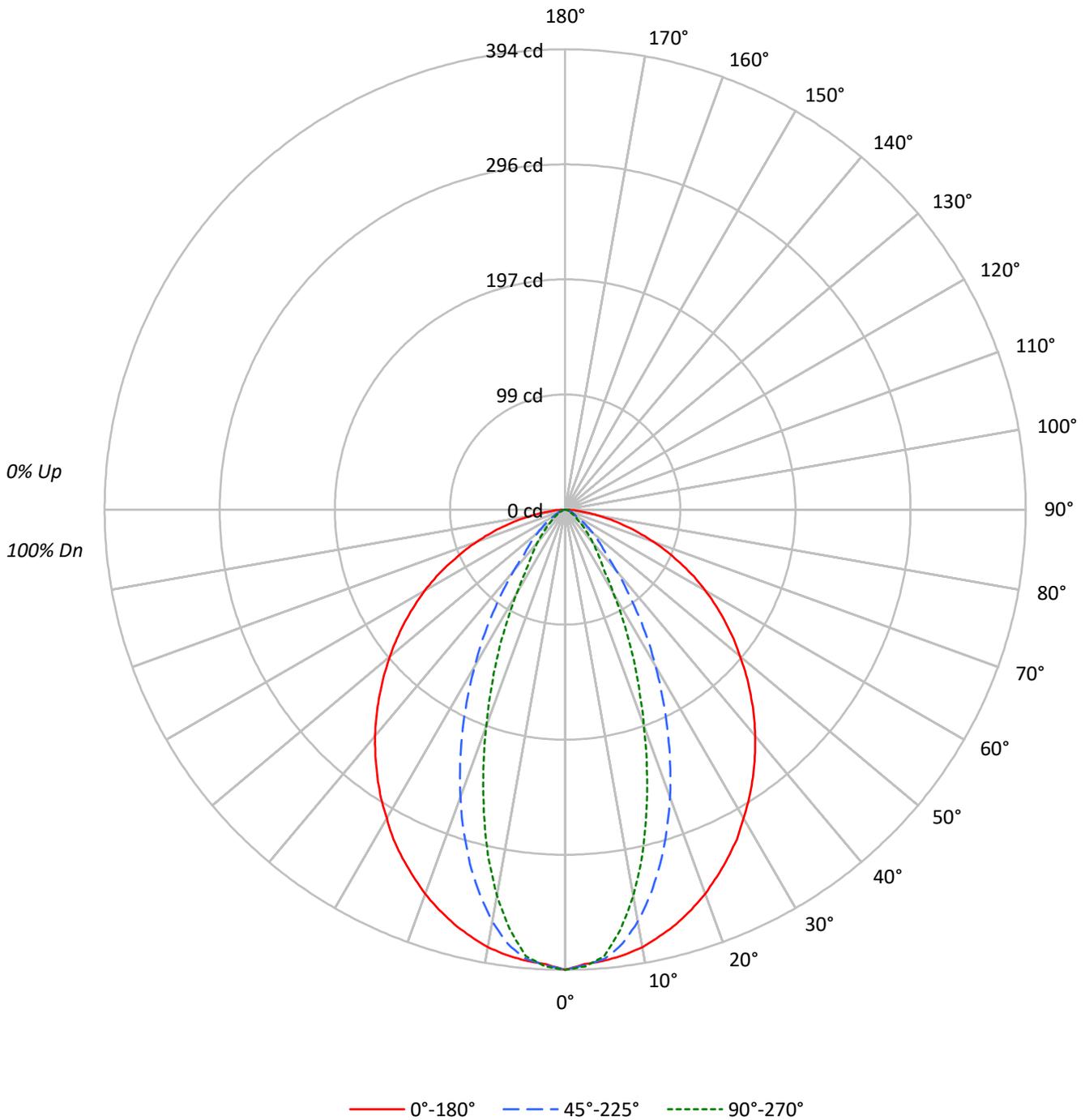
Lumens per Lamp: N/A
Luminaire Lumens: 451.4 lumens
Efficiency: N/A
Efficacy: 35.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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			100	
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90			90	
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80			80	
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71			71	
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64			64	
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58			58	
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53			53	
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49			49	
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47	45			45	
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42			42	
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39			39	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7463	7463	7463
5°	7371	7345	7297
10°	7318	6891	6454
15°	7204	6163	5264
20°	7057	5284	3970
25°	6882	4329	2835
30°	6675	3380	1805
35°	6476	2479	1205
40°	6255	1672	908
45°	6015	1176	646
50°	5762	896	454
55°	5516	621	334
60°	5248	421	273
65°	4869	305	215
70°	4437	238	188
75°	3850	212	139
80°	3055	153	153
85°	1674	217	109

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6015 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.0	8.0
10°-20°	88.4	19.6
20°-30°	101.0	22.4
30°-40°	85.6	19.0
40°-50°	63.9	14.2
50°-60°	41.3	9.1
60°-70°	23.0	5.1
70°-80°	10.1	2.2
80°-90°	2.1	0.5
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°	225.4	49.9
0°-40°	311.0	68.9
0°-60°	416.2	92.2
0°-90°	451.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	451.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	394	394	394	394	394	
5°	388	392	386	382	384	37
15°	367	358	314	281	268	103
25°	329	291	207	152	136	152
35°	280	211	107	58	52	175
45°	224	133	44	28	24	173
55°	167	63	19	12	10	149
65°	109	23	7	5	5	108
75°	53	5	3	2	2	56
85°	8	0	1	0	0	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	393.9	393.9	393.9	393.9	393.9
2.5°	389.5	395.3	390.5	390.5	391.5
5°	387.6	392.4	386.2	382.3	383.7
7.5°	384.7	388.1	375.1	363.5	362.5
10°	380.4	381.8	358.2	340.3	335.5
12.5°	374.1	370.7	337.4	312.3	304.1
15°	367.3	358.2	314.2	280.9	268.4
17.5°	359.1	342.7	288.7	248.1	232.7
20°	350.0	326.8	262.1	213.8	196.9
22.5°	339.8	308.9	234.6	181.5	164.6
25°	329.2	290.6	207.1	151.6	135.6
27.5°	318.1	271.3	180.0	124.5	107.2
30°	305.1	251.5	154.5	98.5	82.5
32.5°	293.0	230.7	130.8	76.3	62.8
35°	280.0	210.9	107.2	58.4	52.1
37.5°	266.5	191.1	86.4	49.2	43.9
40°	252.9	171.4	67.6	41.5	36.7
42.5°	238.9	152.1	52.1	34.8	29.9
45°	224.5	133.2	43.9	28.5	24.1
47.5°	210.0	114.4	36.7	22.7	19.3
50°	195.5	96.5	30.4	17.9	15.4
52.5°	181.5	79.6	24.1	14.5	12.6
55°	167.0	63.2	18.8	11.6	10.1
57.5°	152.5	49.2	14.5	9.7	8.7
60°	138.5	37.2	11.1	7.7	7.2
62.5°	124.1	29.9	8.7	6.3	5.8
65°	108.6	23.2	6.8	5.3	4.8
67.5°	94.6	16.9	5.3	4.3	3.9
70°	80.1	11.6	4.3	3.9	3.4
72.5°	66.1	7.2	3.4	2.9	2.9
75°	52.6	4.8	2.9	2.4	1.9
77.5°	40.1	2.9	1.9	1.9	1.4
80°	28.0	1.9	1.4	1.4	1.4
82.5°	17.4	1.4	1.0	1.0	1.0
85°	7.7	0.5	1.0	0.5	0.5
87.5°	1.4	0.5	0.5	0.5	0.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)