

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: P1055186

Luminaire Tested: S122R3DR-S290D930-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055186  
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-S290D930-X4F0-XX-UDD-FLL-S  
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

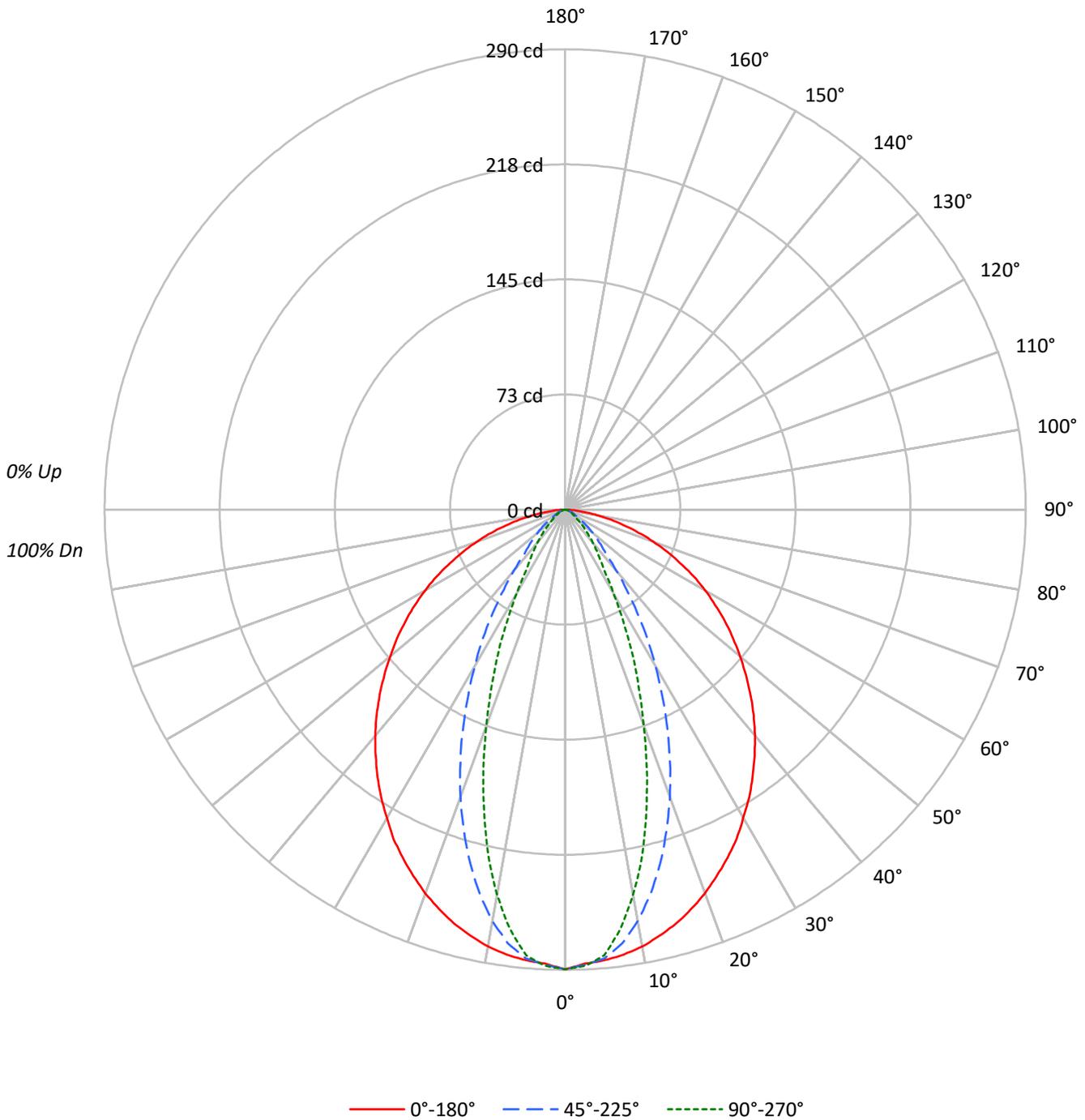
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 331.9 lumens  
Efficiency: N/A  
Efficacy: 26.3 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°	5487	5487	5487
5°	5420	5399	5365
10°	5379	5065	4744
15°	5298	4531	3870
20°	5188	3885	2919
25°	5059	3182	2084
30°	4907	2485	1328
35°	4760	1823	886
40°	4598	1229	668
45°	4421	865	474
50°	4235	660	336
55°	4056	456	248
60°	3857	311	201
65°	3577	224	157
70°	3263	177	138
75°	2833	154	102
80°	2248	120	120
85°	1239	152	87

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4421 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.5	8.0
10°-20°	65.0	19.6
20°-30°	74.2	22.4
30°-40°	62.9	19.0
40°-50°	47.0	14.2
50°-60°	30.4	9.1
60°-70°	16.9	5.1
70°-80°	7.4	2.2
80°-90°	1.6	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°	165.7	49.9
0°-40°	228.6	68.9
0°-60°	306.0	92.2
0°-90°	331.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	331.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	290	290	290	290	290	
5°	285	288	284	281	282	27
15°	270	263	231	206	197	76
25°	242	214	152	111	100	111
35°	206	155	79	43	38	129
45°	165	98	32	21	18	127
55°	123	46	14	8	8	110
65°	80	17	5	4	4	79
75°	39	4	2	2	1	41
85°	6	0	1	0	0	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	289.6	289.6	289.6	289.6	289.6
2.5°	286.4	290.6	287.1	287.1	287.8
5°	285.0	288.5	283.9	281.1	282.1
7.5°	282.8	285.3	275.7	267.2	266.5
10°	279.6	280.7	263.3	250.2	246.6
12.5°	275.0	272.5	248.1	229.6	223.6
15°	270.1	263.3	231.0	206.5	197.3
17.5°	264.0	252.0	212.2	182.4	171.0
20°	257.3	240.2	192.7	157.2	144.8
22.5°	249.8	227.1	172.5	133.4	121.0
25°	242.0	213.6	152.2	111.4	99.7
27.5°	233.9	199.4	132.4	91.6	78.8
30°	224.3	184.9	113.6	72.4	60.7
32.5°	215.4	169.6	96.2	56.1	46.1
35°	205.8	155.1	78.8	42.9	38.3
37.5°	195.9	140.5	63.5	36.2	32.3
40°	185.9	126.0	49.7	30.5	27.0
42.5°	175.7	111.8	38.3	25.6	22.0
45°	165.0	97.9	32.3	20.9	17.7
47.5°	154.4	84.1	27.0	16.7	14.2
50°	143.7	71.0	22.4	13.1	11.4
52.5°	133.4	58.6	17.7	10.6	9.2
55°	122.8	46.5	13.8	8.5	7.5
57.5°	112.1	36.2	10.6	7.1	6.4
60°	101.8	27.3	8.2	5.7	5.3
62.5°	91.2	22.0	6.4	4.6	4.3
65°	79.8	17.0	5.0	3.9	3.5
67.5°	69.6	12.4	3.9	3.2	2.8
70°	58.9	8.5	3.2	2.8	2.5
72.5°	48.6	5.3	2.5	2.1	2.1
75°	38.7	3.5	2.1	1.8	1.4
77.5°	29.5	2.1	1.4	1.4	1.1
80°	20.6	1.4	1.1	1.1	1.1
82.5°	12.8	1.1	0.7	0.7	0.7
85°	5.7	0.4	0.7	0.4	0.4
87.5°	1.1	0.4	0.4	0.4	0.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)