

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: P1055184

Luminaire Tested: S122R3DR-S290D927-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055184  
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-S290D927-X4F0-XX-UDD-FLL-W  
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

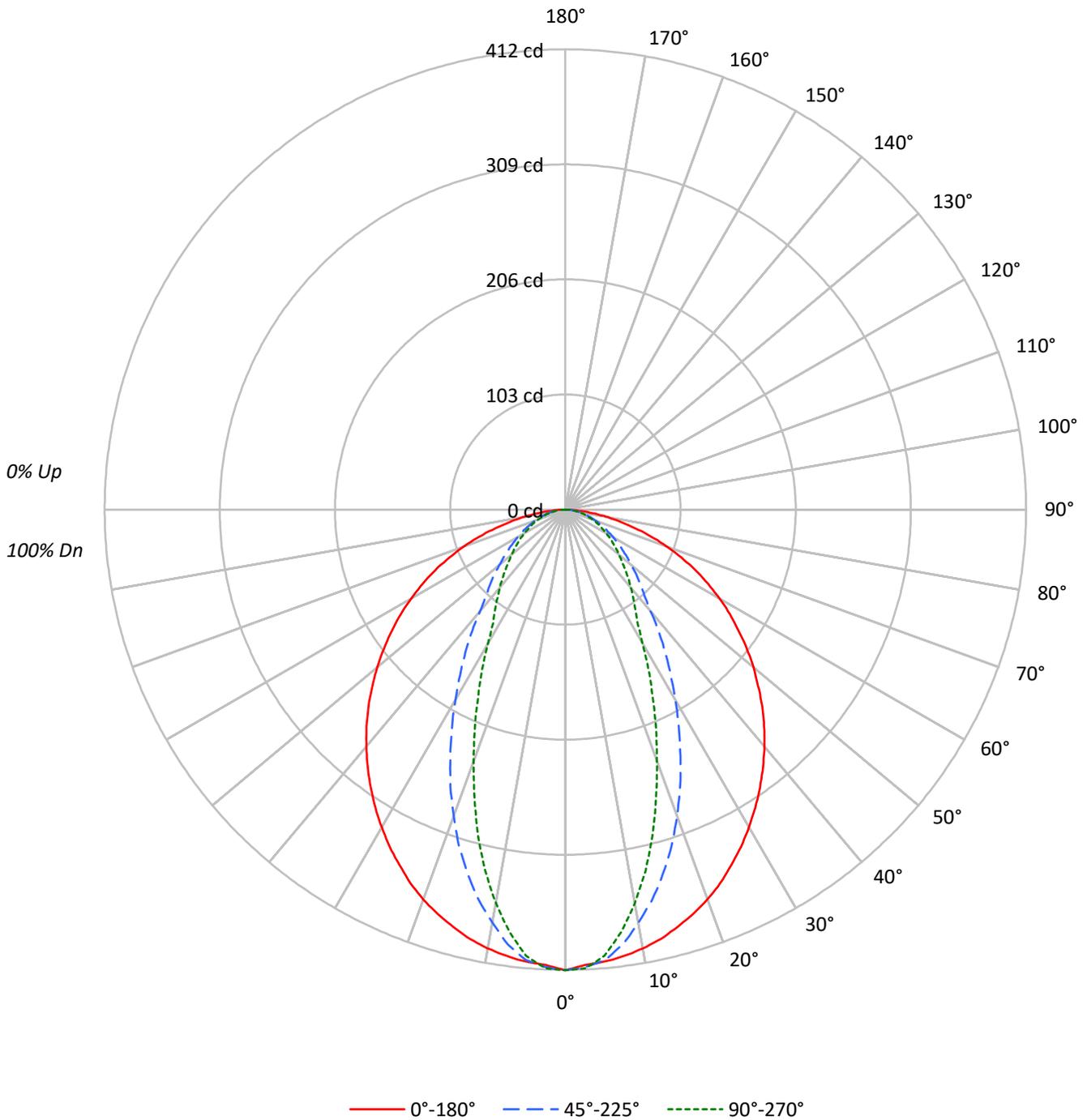
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 623.8 lumens  
Efficiency: N/A  
Efficacy: 49.5 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°	7813	7813	7813
5°	7725	7699	7626
10°	7674	7224	6880
15°	7589	6622	5918
20°	7488	5887	4831
25°	7337	5088	3857
30°	7182	4299	3010
35°	7017	3596	2528
40°	6848	2916	2251
45°	6669	2551	2015
50°	6473	2255	1839
55°	6253	2038	1708
60°	6036	1857	1595
65°	5752	1699	1497
70°	5329	1584	1413
75°	4721	1442	1340
80°	4026	1353	1244
85°	2782	1196	1130

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6669 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.8	6.1
10°-20°	95.4	15.3
20°-30°	117.6	18.8
30°-40°	112.8	18.1
40°-50°	97.3	15.6
50°-60°	75.5	12.1
60°-70°	51.7	8.3
70°-80°	28.1	4.5
80°-90°	7.7	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°	250.8	40.2
0°-40°	363.6	58.3
0°-60°	536.3	86.0
0°-90°	623.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	623.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	412	412	412	412	412	
5°	406	412	405	400	401	39
15°	387	375	338	310	302	109
25°	351	313	243	199	184	162
35°	303	241	156	116	109	190
45°	249	168	95	79	75	192
55°	189	101	62	53	52	169
65°	128	55	38	34	33	127
75°	64	25	20	19	18	69
85°	13	6	6	6	5	16
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	412.4	412.4	412.4	412.4	412.4
2.5°	407.9	414.8	410.0	410.0	411.0
5°	406.2	412.0	404.8	399.6	401.0
7.5°	403.1	407.2	392.7	381.7	381.4
10°	398.9	399.3	375.5	361.0	357.6
12.5°	393.8	388.2	357.9	336.2	331.0
15°	386.9	375.1	337.6	310.0	301.7
17.5°	379.6	361.7	315.8	281.4	270.0
20°	371.4	345.5	292.0	252.7	239.6
22.5°	362.0	330.0	268.3	225.2	211.4
25°	351.0	313.4	243.4	198.6	184.5
27.5°	340.3	296.5	219.6	175.2	160.7
30°	328.3	278.3	196.5	152.7	137.6
32.5°	316.2	259.6	175.2	131.4	120.0
35°	303.4	240.7	155.5	115.9	109.3
37.5°	290.3	222.1	136.9	105.5	99.6
40°	276.9	203.4	117.9	95.5	91.0
42.5°	263.1	185.2	104.8	87.2	83.1
45°	248.9	167.6	95.2	78.6	75.2
47.5°	233.8	150.0	85.9	71.4	68.3
50°	219.6	133.1	76.5	64.8	62.4
52.5°	204.5	116.5	69.0	59.0	56.9
55°	189.3	100.7	61.7	53.4	51.7
57.5°	174.5	85.5	54.8	48.3	46.9
60°	159.3	73.4	49.0	43.4	42.1
62.5°	143.8	63.8	43.4	39.0	37.6
65°	128.3	54.8	37.9	34.5	33.4
67.5°	112.1	46.2	33.1	30.3	29.7
70°	96.2	38.6	28.6	26.2	25.5
72.5°	80.7	31.4	24.1	22.4	21.7
75°	64.5	25.2	19.7	18.6	18.3
77.5°	50.3	19.7	15.9	15.2	14.8
80°	36.9	14.5	12.4	11.7	11.4
82.5°	24.5	10.0	9.0	8.6	8.3
85°	12.8	6.2	5.5	5.5	5.2
87.5°	4.1	2.8	2.8	2.8	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)