

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: P1055177

Luminaire Tested: S122R3DR-S290D840-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055177
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-S290D840-X4F0-XX-UDD-FLL-S
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

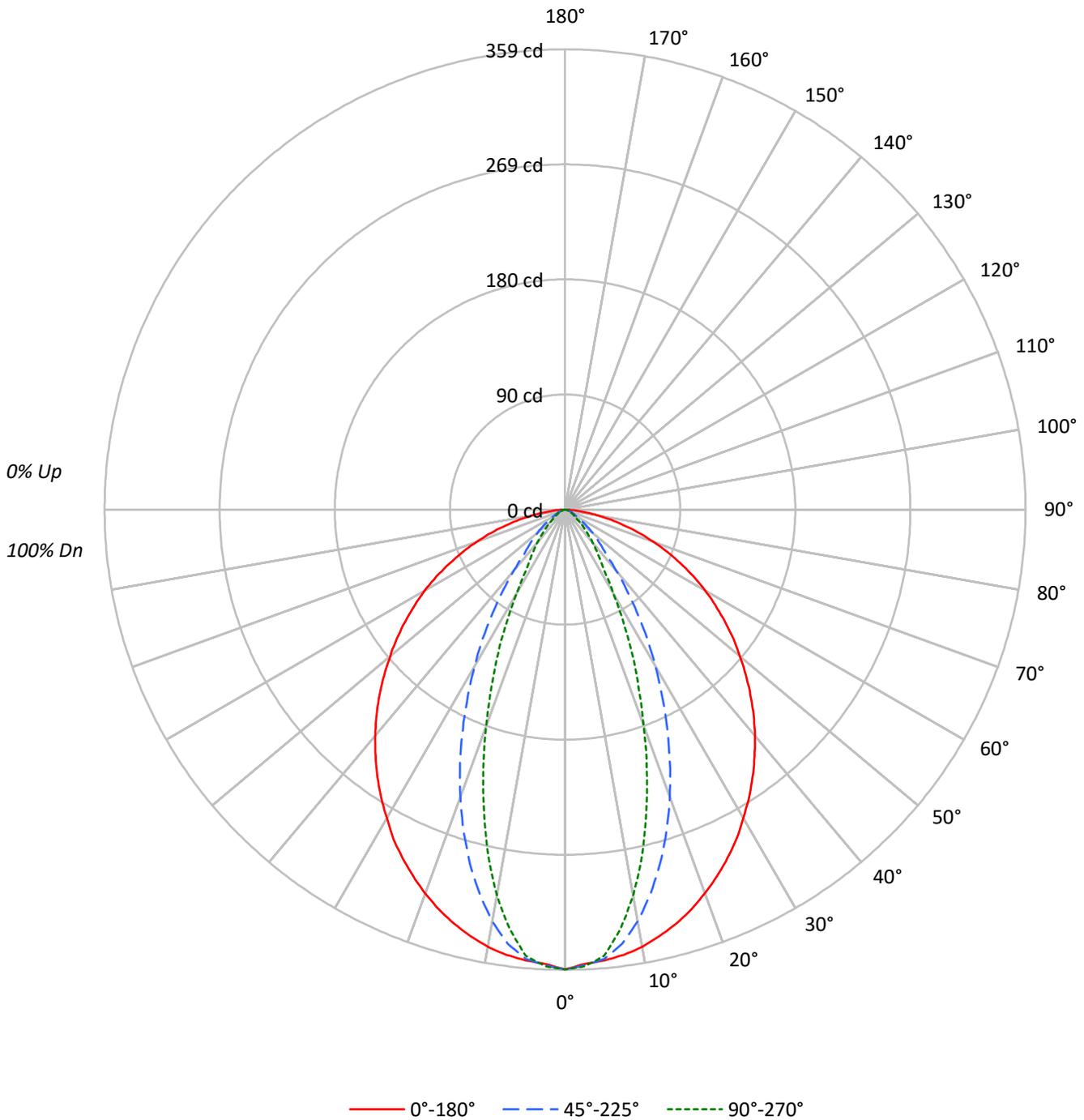
Lumens per Lamp: N/A
Luminaire Lumens: 411.0 lumens
Efficiency: N/A
Efficacy: 32.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6796	6796	6796
5°	6713	6687	6645
10°	6664	6274	5877
15°	6561	5612	4794
20°	6426	4813	3615
25°	6267	3943	2582
30°	6077	3078	1645
35°	5895	2257	1099
40°	5696	1521	826
45°	5477	1072	589
50°	5246	816	416
55°	5024	565	304
60°	4782	383	250
65°	4434	278	197
70°	4044	222	172
75°	3506	190	132
80°	2782	142	142
85°	1522	196	87

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5477 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.8	8.0
10°-20°	80.5	19.6
20°-30°	91.9	22.4
30°-40°	78.0	19.0
40°-50°	58.2	14.2
50°-60°	37.6	9.1
60°-70°	21.0	5.1
70°-80°	9.2	2.2
80°-90°	1.9	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°	205.2	49.9
0°-40°	283.2	68.9
0°-60°	379.0	92.2
0°-90°	411.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	411.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	359	359	359	359	359	
5°	353	357	352	348	349	33
15°	334	326	286	256	244	94
25°	300	265	189	138	124	138
35°	255	192	98	53	48	159
45°	204	121	40	26	22	158
55°	152	58	17	10	9	136
65°	99	21	6	5	4	98
75°	48	4	3	2	2	51
85°	7	0	1	0	0	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	358.7	358.7	358.7	358.7	358.7
2.5°	354.7	360.0	355.6	355.6	356.5
5°	353.0	357.4	351.6	348.1	349.4
7.5°	350.3	353.4	341.5	331.0	330.1
10°	346.4	347.7	326.1	309.9	305.5
12.5°	340.7	337.6	307.2	284.4	276.9
15°	334.5	326.1	286.1	255.8	244.4
17.5°	327.0	312.1	262.9	225.9	211.9
20°	318.7	297.6	238.7	194.7	179.3
22.5°	309.4	281.3	213.6	165.3	149.9
25°	299.8	264.6	188.6	138.0	123.5
27.5°	289.7	247.0	164.0	113.4	97.6
30°	277.8	229.0	140.7	89.7	75.2
32.5°	266.8	210.1	119.1	69.4	57.1
35°	254.9	192.1	97.6	53.2	47.5
37.5°	242.6	174.1	78.7	44.8	40.0
40°	230.3	156.0	61.5	37.8	33.4
42.5°	217.6	138.5	47.5	31.6	27.3
45°	204.4	121.3	40.0	25.9	22.0
47.5°	191.2	104.2	33.4	20.7	17.6
50°	178.0	87.9	27.7	16.3	14.1
52.5°	165.3	72.5	22.0	13.2	11.4
55°	152.1	57.6	17.1	10.5	9.2
57.5°	138.9	44.8	13.2	8.8	7.9
60°	126.2	33.8	10.1	7.0	6.6
62.5°	113.0	27.3	7.9	5.7	5.3
65°	98.9	21.1	6.2	4.8	4.4
67.5°	86.2	15.4	4.8	4.0	3.5
70°	73.0	10.5	4.0	3.5	3.1
72.5°	60.2	6.6	3.1	2.6	2.6
75°	47.9	4.4	2.6	2.2	1.8
77.5°	36.5	2.6	1.8	1.8	1.3
80°	25.5	1.8	1.3	1.3	1.3
82.5°	15.8	1.3	0.9	0.9	0.9
85°	7.0	0.4	0.9	0.4	0.4
87.5°	1.3	0.4	0.4	0.4	0.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)