

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1055171

Luminaire Tested: S122R3DRP-S290D830-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055171
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: S122R3DRP-S290D830-X4F0-XX-UDD-F-S
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

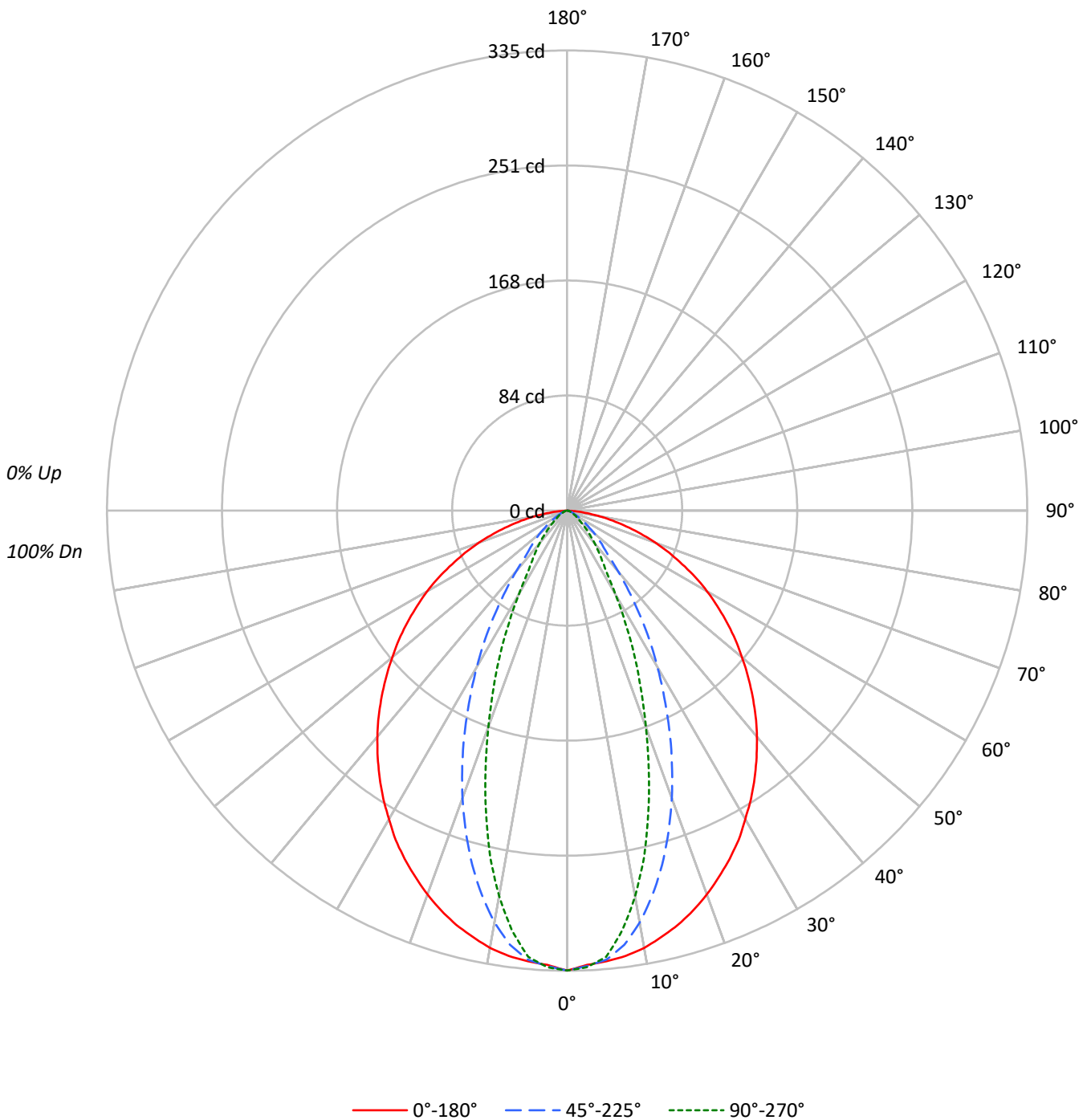
Lumens per Lamp: N/A
Luminaire Lumens: 383.6 lumens
Efficiency: N/A
Efficacy: 30.4 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 12.6
Input Voltage (V): 120
Input Current (A_{in}): 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	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°	6343	6343	6343
5°	6265	6242	6202
10°	6220	5856	5485
15°	6124	5239	4474
20°	5996	4492	3375
25°	5849	3679	2410
30°	5673	2872	1536
35°	5502	2107	1025
40°	5317	1420	772
45°	5112	999	549
50°	4899	760	386
55°	4687	528	284
60°	4460	356	235
65°	4138	256	184
70°	3772	205	161
75°	3272	183	117
80°	2597	131	131
85°	1435	174	87

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5112 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.6	8.0
10°-20°	75.1	19.6
20°-30°	85.8	22.4
30°-40°	72.8	19.0
40°-50°	54.3	14.2
50°-60°	35.1	9.1
60°-70°	19.6	5.1
70°-80°	8.6	2.2
80°-90°	1.8	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°	191.5	49.9
0°-40°	264.3	68.9
0°-60°	353.7	92.2
0°-90°	383.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	383.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	335	335	335	335	335	
5°	329	334	328	325	326	31
15°	312	304	267	239	228	88
25°	280	247	176	129	115	129
35°	238	179	91	50	44	149
45°	191	113	37	24	20	147
55°	142	54	16	10	9	127
65°	92	20	6	4	4	92
75°	45	4	2	2	2	48
85°	7	0	1	0	0	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	334.8	334.8	334.8	334.8	334.8
2.5°	331.1	336.0	331.9	331.9	332.7
5°	329.4	333.5	328.2	324.9	326.1
7.5°	327.0	329.8	318.8	308.9	308.1
10°	323.3	324.5	304.4	289.2	285.1
12.5°	317.9	315.1	286.8	265.4	258.5
15°	312.2	304.4	267.1	238.8	228.1
17.5°	305.2	291.3	245.3	210.9	197.7
20°	297.4	277.7	222.8	181.7	167.4
22.5°	288.8	262.6	199.4	154.3	139.9
25°	279.8	247.0	176.0	128.8	115.3
27.5°	270.4	230.6	153.0	105.8	91.1
30°	259.3	213.7	131.3	83.7	70.2
32.5°	249.0	196.1	111.2	64.8	53.3
35°	237.9	179.3	91.1	49.6	44.3
37.5°	226.5	162.5	73.4	41.8	37.3
40°	215.0	145.6	57.4	35.3	31.2
42.5°	203.1	129.2	44.3	29.5	25.4
45°	190.8	113.2	37.3	24.2	20.5
47.5°	178.5	97.2	31.2	19.3	16.4
50°	166.2	82.0	25.8	15.2	13.1
52.5°	154.3	67.7	20.5	12.3	10.7
55°	141.9	53.7	16.0	9.8	8.6
57.5°	129.6	41.8	12.3	8.2	7.4
60°	117.7	31.6	9.4	6.6	6.2
62.5°	105.4	25.4	7.4	5.3	4.9
65°	92.3	19.7	5.7	4.5	4.1
67.5°	80.4	14.4	4.5	3.7	3.3
70°	68.1	9.8	3.7	3.3	2.9
72.5°	56.2	6.2	2.9	2.5	2.5
75°	44.7	4.1	2.5	2.1	1.6
77.5°	34.1	2.5	1.6	1.6	1.2
80°	23.8	1.6	1.2	1.2	1.2
82.5°	14.8	1.2	0.8	0.8	0.8
85°	6.6	0.4	0.8	0.4	0.4
87.5°	1.2	0.4	0.4	0.4	0.4
90°	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	14.67	15.98	15.03	16.30	16.61	0.98	2.30	1.35	2.61	2.93
	3H	17.14	18.31	17.52	18.64	19.00	1.84	3.01	2.22	3.34	3.71
	4H	18.09	19.19	18.50	19.54	19.92	2.12	3.21	2.52	3.56	3.94
	6H	18.78	19.79	19.20	20.16	20.55	2.29	3.30	2.71	3.67	4.06
	8H	18.98	19.93	19.41	20.32	20.72	2.36	3.31	2.79	3.70	4.11
	12H	19.06	19.97	19.49	20.35	20.78	2.38	3.29	2.82	3.67	4.11
4H	2H	14.45	15.54	14.85	15.89	16.28	1.54	2.64	1.95	2.99	3.37
	3H	16.94	17.83	17.35	18.24	18.64	2.59	3.49	3.00	3.89	4.29
	4H	17.88	18.68	18.32	19.10	19.54	2.97	3.77	3.40	4.18	4.63
	6H	18.64	19.33	19.10	19.77	20.24	3.24	3.93	3.70	4.38	4.84
	8H	18.88	19.52	19.35	19.97	20.44	3.33	3.97	3.80	4.42	4.89
	12H	19.01	19.58	19.50	20.06	20.54	3.37	3.94	3.86	4.42	4.90
8H	4H	17.75	18.39	18.22	18.84	19.31	3.34	3.98	3.80	4.43	4.90
	6H	18.49	19.01	18.99	19.51	19.99	3.67	4.20	4.17	4.69	5.17
	8H	18.73	19.20	19.26	19.72	20.21	3.80	4.27	4.32	4.79	5.28
	12H	18.88	19.30	19.40	19.79	20.36	3.88	4.29	4.40	4.79	5.36
12H	4H	17.70	18.27	18.19	18.75	19.23	3.45	4.02	3.94	4.51	4.98
	6H	18.43	18.90	18.95	19.41	19.91	3.79	4.26	4.31	4.78	5.27
	8H	18.69	19.11	19.21	19.60	20.17	3.96	4.37	4.47	4.87	5.44