

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: P1055225

Luminaire Tested: S122R3DR-S675D830-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055225
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-S675D830-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

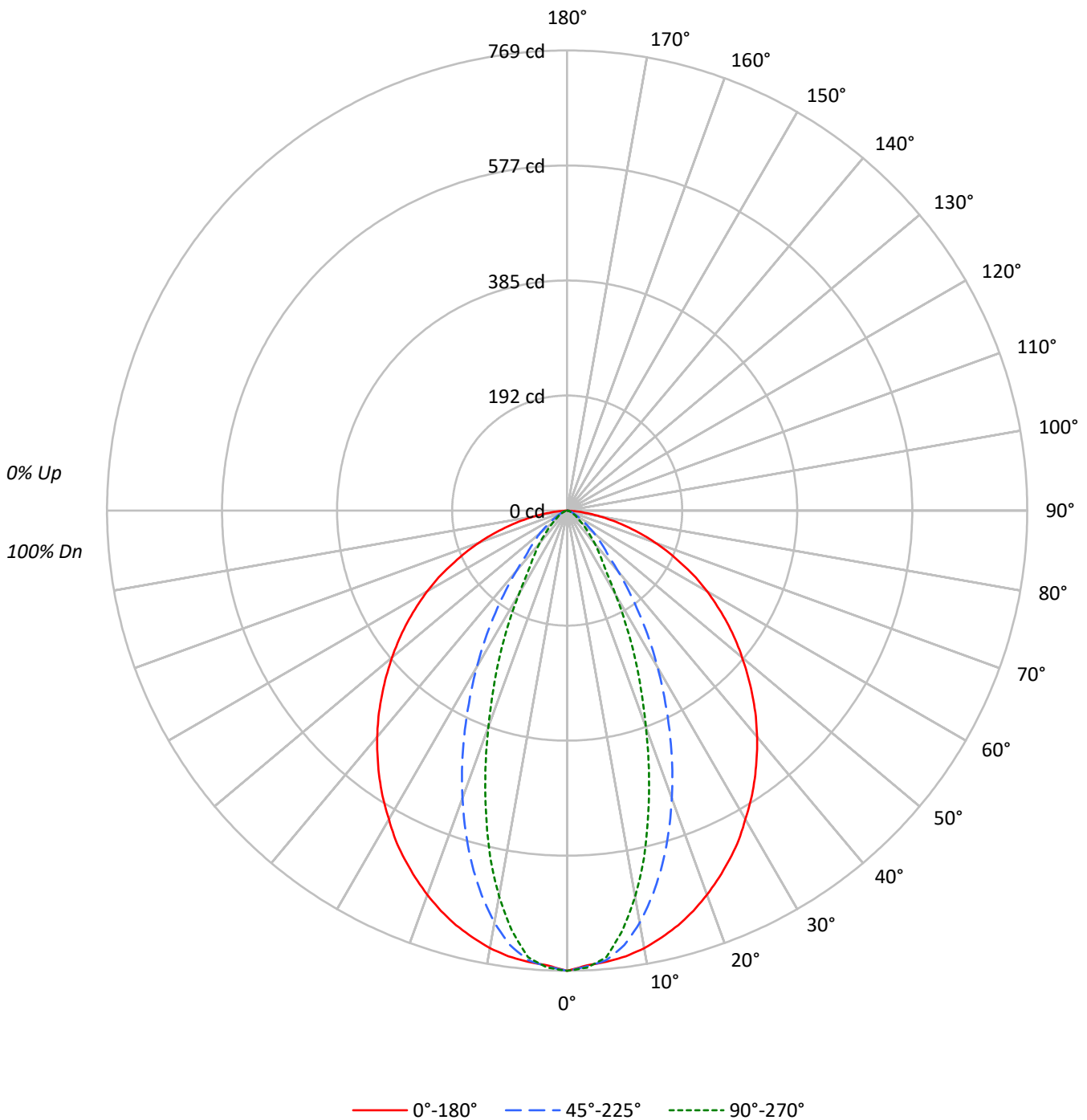
Lumens per Lamp: N/A
Luminaire Lumens: 881.4 lumens
Efficiency: N/A
Efficacy: 33.4 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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





TEST NUMBER: P105225

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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°	14571	14571	14571
5°	14395	14340	14250
10°	14288	13455	12603
15°	14069	12035	10280
20°	13777	10319	7754
25°	13437	8454	5538
30°	13032	6598	3527
35°	12644	4839	2354
40°	12215	3265	1771
45°	11744	2299	1262
50°	11250	1751	890
55°	10771	1216	654
60°	10250	822	534
65°	9508	592	421
70°	8669	471	366
75°	7518	417	278
80°	5968	305	305
85°	3282	413	196

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11744 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.3	8.0
10°-20°	172.6	19.6
20°-30°	197.2	22.4
30°-40°	167.2	19.0
40°-50°	124.8	14.2
50°-60°	80.6	9.1
60°-70°	45.0	5.1
70°-80°	19.7	2.2
80°-90°	4.1	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°	440.1	49.9
0°-40°	607.3	68.9
0°-60°	812.7	92.2
0°-90°	881.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	881.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	769	769	769	769	769	
5°	757	766	754	746	749	72
15°	717	699	614	549	524	202
25°	643	567	404	296	265	296
35°	547	412	209	114	102	342
45°	438	260	86	56	47	338
55°	326	124	37	23	20	292
65°	212	45	13	10	9	211
75°	103	9	6	5	4	110
85°	15	1	2	1	1	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	769.1	769.1	769.1	769.1	769.1
2.5°	760.6	771.9	762.5	762.5	764.4
5°	756.9	766.3	754.0	746.5	749.3
7.5°	751.2	757.8	732.4	709.7	707.8
10°	742.7	745.6	699.4	664.5	655.1
12.5°	730.5	723.9	658.8	609.8	593.8
15°	717.3	699.4	613.6	548.6	524.1
17.5°	701.3	669.2	563.6	484.5	454.3
20°	683.3	638.1	511.8	417.5	384.6
22.5°	663.5	603.2	458.1	354.4	321.4
25°	642.8	567.4	404.4	296.0	264.9
27.5°	621.1	529.7	351.6	243.2	209.2
30°	595.7	491.1	301.6	192.3	161.2
32.5°	572.1	450.5	255.4	148.9	122.5
35°	546.7	411.9	209.2	114.0	101.8
37.5°	520.3	373.2	168.7	96.1	85.8
40°	493.9	334.6	132.0	81.1	71.6
42.5°	466.6	296.9	101.8	67.9	58.4
45°	438.3	260.1	85.8	55.6	47.1
47.5°	410.0	223.4	71.6	44.3	37.7
50°	381.7	188.5	59.4	34.9	30.2
52.5°	354.4	155.5	47.1	28.3	24.5
55°	326.1	123.5	36.8	22.6	19.8
57.5°	297.8	96.1	28.3	18.9	17.0
60°	270.5	72.6	21.7	15.1	14.1
62.5°	242.2	58.4	17.0	12.3	11.3
65°	212.1	45.2	13.2	10.4	9.4
67.5°	184.7	33.0	10.4	8.5	7.5
70°	156.5	22.6	8.5	7.5	6.6
72.5°	129.1	14.1	6.6	5.7	5.7
75°	102.7	9.4	5.7	4.7	3.8
77.5°	78.2	5.7	3.8	3.8	2.8
80°	54.7	3.8	2.8	2.8	2.8
82.5°	33.9	2.8	1.9	1.9	1.9
85°	15.1	0.9	1.9	0.9	0.9
87.5°	2.8	0.9	0.9	0.9	0.9
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	17.56	18.88	17.92	19.19	19.50	3.89	5.21	4.25	5.52	5.83
	3H	20.03	21.20	20.41	21.53	21.89	4.73	5.90	5.11	6.23	6.59
	4H	20.98	22.08	21.39	22.43	22.81	5.01	6.10	5.41	6.45	6.83
	6H	21.67	22.68	22.09	23.05	23.44	5.19	6.20	5.61	6.57	6.96
	8H	21.87	22.82	22.30	23.21	23.61	5.27	6.22	5.70	6.61	7.01
	12H	21.95	22.86	22.38	23.24	23.67	5.29	6.20	5.72	6.58	7.01
4H	2H	17.34	18.43	17.75	18.79	19.17	4.46	5.55	4.86	5.90	6.28
	3H	19.83	20.72	20.24	21.13	21.53	5.48	6.38	5.89	6.78	7.18
	4H	20.77	21.57	21.21	21.99	22.43	5.85	6.65	6.28	7.07	7.51
	6H	21.53	22.22	21.99	22.66	23.13	6.14	6.83	6.60	7.27	7.74
	8H	21.77	22.41	22.24	22.86	23.33	6.24	6.88	6.71	7.33	7.80
	12H	21.90	22.47	22.38	22.95	23.42	6.28	6.85	6.77	7.33	7.81
8H	4H	20.64	21.28	21.11	21.73	22.20	6.22	6.87	6.69	7.31	7.78
	6H	21.38	21.90	21.88	22.40	22.88	6.58	7.10	7.08	7.60	8.08
	8H	21.62	22.09	22.14	22.61	23.10	6.72	7.19	7.24	7.70	8.20
	12H	21.77	22.19	22.29	22.68	23.25	6.80	7.21	7.31	7.70	8.28
12H	4H	20.59	21.16	21.08	21.64	22.12	6.34	6.91	6.83	7.40	7.87
	6H	21.32	21.79	21.84	22.30	22.80	6.70	7.17	7.22	7.68	8.18
	8H	21.58	21.99	22.10	22.49	23.06	6.88	7.29	7.39	7.79	8.36