

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: P1055252

Luminaire Tested: S122R3DR-S865D830-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055252
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-S865D830-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

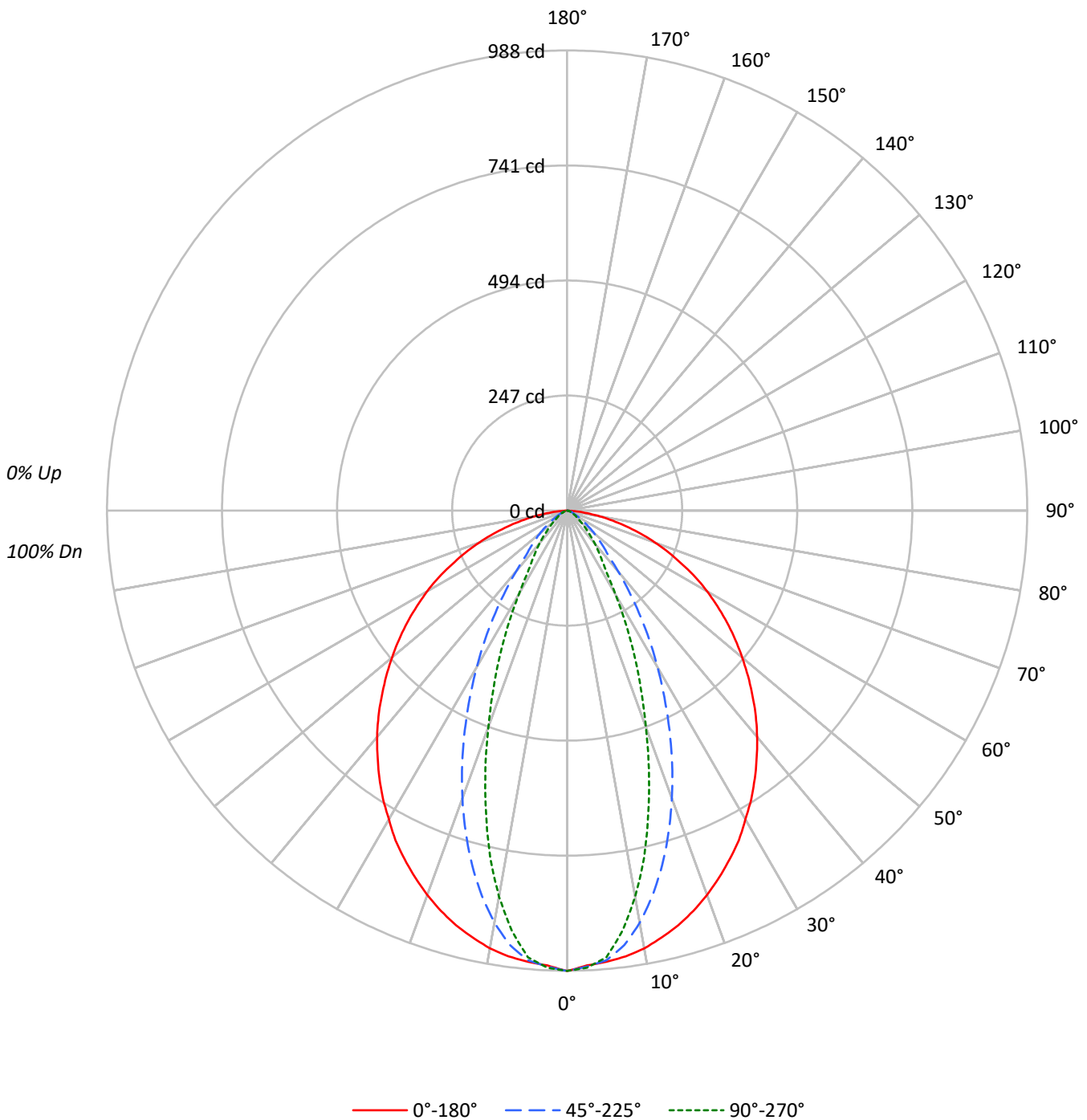
Lumens per Lamp: N/A
Luminaire Lumens: 1132.7 lumens
Efficiency: N/A
Efficacy: 32.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
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

TEST NUMBER: P1055252

CATALOG NUMBER: S122R3DR-S865D830-X4F0-XX-UDD-F-S

Luminous Intensity Polar Plot





TEST NUMBER: P105252

CATALOG NUMBER: S122R3DR-S865D830-X4F0-XX-UDD-F-S

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°	18726	18726	18726
5°	18497	18429	18313
10°	18361	17289	16195
15°	18078	15466	13208
20°	17704	13260	9964
25°	17269	10862	7116
30°	16747	8479	4531
35°	16248	6219	3025
40°	15697	4195	2278
45°	15090	2953	1624
50°	14457	2249	1144
55°	13843	1559	839
60°	13171	1057	690
65°	12216	762	542
70°	11140	604	471
75°	9663	534	351
80°	7670	393	393
85°	4217	522	261

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 15090 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.4	8.0
10°-20°	221.8	19.6
20°-30°	253.4	22.4
30°-40°	214.9	19.0
40°-50°	160.3	14.2
50°-60°	103.6	9.1
60°-70°	57.8	5.1
70°-80°	25.4	2.2
80°-90°	5.2	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°	565.5	49.9
0°-40°	780.4	68.9
0°-60°	1044.3	92.2
0°-90°	1132.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1132.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	988	988	988	988	988	
5°	973	985	969	959	963	92
15°	922	899	788	705	673	260
25°	826	729	520	380	340	380
35°	702	529	269	147	131	439
45°	563	334	110	72	61	435
55°	419	159	47	29	25	375
65°	272	58	17	13	12	271
75°	132	12	7	6	5	141
85°	19	1	2	1	1	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	988.4	988.4	988.4	988.4	988.4
2.5°	977.5	992.0	979.9	979.9	982.3
5°	972.6	984.7	969.0	959.3	962.9
7.5°	965.3	973.8	941.1	912.1	909.6
10°	954.4	958.1	898.7	853.9	841.8
12.5°	938.7	930.2	846.6	783.7	763.1
15°	921.7	898.7	788.5	704.9	673.4
17.5°	901.2	860.0	724.3	622.6	583.8
20°	878.1	820.0	657.7	536.6	494.2
22.5°	852.7	775.2	588.7	455.4	413.0
25°	826.1	729.2	519.6	380.3	340.4
27.5°	798.2	680.7	451.8	312.5	268.9
30°	765.5	631.0	387.6	247.1	207.1
32.5°	735.2	579.0	328.2	191.4	157.5
35°	702.5	529.3	268.9	146.6	130.8
37.5°	668.6	479.6	216.8	123.5	110.2
40°	634.7	430.0	169.6	104.2	92.1
42.5°	599.6	381.5	130.8	87.2	75.1
45°	563.2	334.3	110.2	71.5	60.6
47.5°	526.9	287.1	92.1	56.9	48.4
50°	490.5	242.2	76.3	44.8	38.8
52.5°	455.4	199.9	60.6	36.3	31.5
55°	419.1	158.7	47.2	29.1	25.4
57.5°	382.7	123.5	36.3	24.2	21.8
60°	347.6	93.3	27.9	19.4	18.2
62.5°	311.3	75.1	21.8	15.7	14.5
65°	272.5	58.1	17.0	13.3	12.1
67.5°	237.4	42.4	13.3	10.9	9.7
70°	201.1	29.1	10.9	9.7	8.5
72.5°	165.9	18.2	8.5	7.3	7.3
75°	132.0	12.1	7.3	6.1	4.8
77.5°	100.5	7.3	4.8	4.8	3.6
80°	70.3	4.8	3.6	3.6	3.6
82.5°	43.6	3.6	2.4	2.4	2.4
85°	19.4	1.2	2.4	1.2	1.2
87.5°	3.6	1.2	1.2	1.2	1.2
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	18.43	19.75	18.79	20.06	20.38	4.74	6.06	5.10	6.37	6.68
	3H	20.90	22.07	21.28	22.40	22.77	5.59	6.76	5.97	7.09	7.46
	4H	21.86	22.95	22.26	23.30	23.68	5.86	6.96	6.27	7.31	7.69
	6H	22.54	23.55	22.96	23.92	24.31	6.05	7.05	6.47	7.42	7.82
	8H	22.74	23.69	23.17	24.08	24.49	6.12	7.07	6.55	7.46	7.87
	12H	22.82	23.73	23.25	24.11	24.54	6.15	7.06	6.58	7.44	7.87
4H	2H	18.21	19.31	18.62	19.66	20.04	5.31	6.40	5.72	6.76	7.14
	3H	20.70	21.59	21.11	22.00	22.40	6.35	7.24	6.76	7.65	8.05
	4H	21.64	22.44	22.08	22.86	23.31	6.72	7.52	7.15	7.94	8.38
	6H	22.40	23.09	22.86	23.53	24.00	7.00	7.69	7.46	8.14	8.60
	8H	22.64	23.29	23.11	23.73	24.20	7.10	7.74	7.57	8.19	8.66
	12H	22.77	23.34	23.26	23.82	24.30	7.14	7.71	7.63	8.19	8.67
8H	4H	21.51	22.15	21.98	22.60	23.07	7.09	7.73	7.56	8.18	8.65
	6H	22.25	22.77	22.75	23.27	23.75	7.44	7.96	7.94	8.46	8.94
	8H	22.49	22.96	23.02	23.48	23.97	7.58	8.05	8.10	8.56	9.05
	12H	22.64	23.06	23.16	23.55	24.12	7.66	8.07	8.17	8.57	9.14
12H	4H	21.47	22.03	21.95	22.52	22.99	7.21	7.78	7.69	8.26	8.73
	6H	22.19	22.66	22.71	23.17	23.67	7.56	8.03	8.08	8.54	9.04
	8H	22.45	22.87	22.97	23.36	23.93	7.73	8.15	8.25	8.64	9.21