

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: P1055276

Luminaire Tested: S122R3DR-S865D950-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055276
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-S865D950-X4F0-XX-UDD-F-S
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

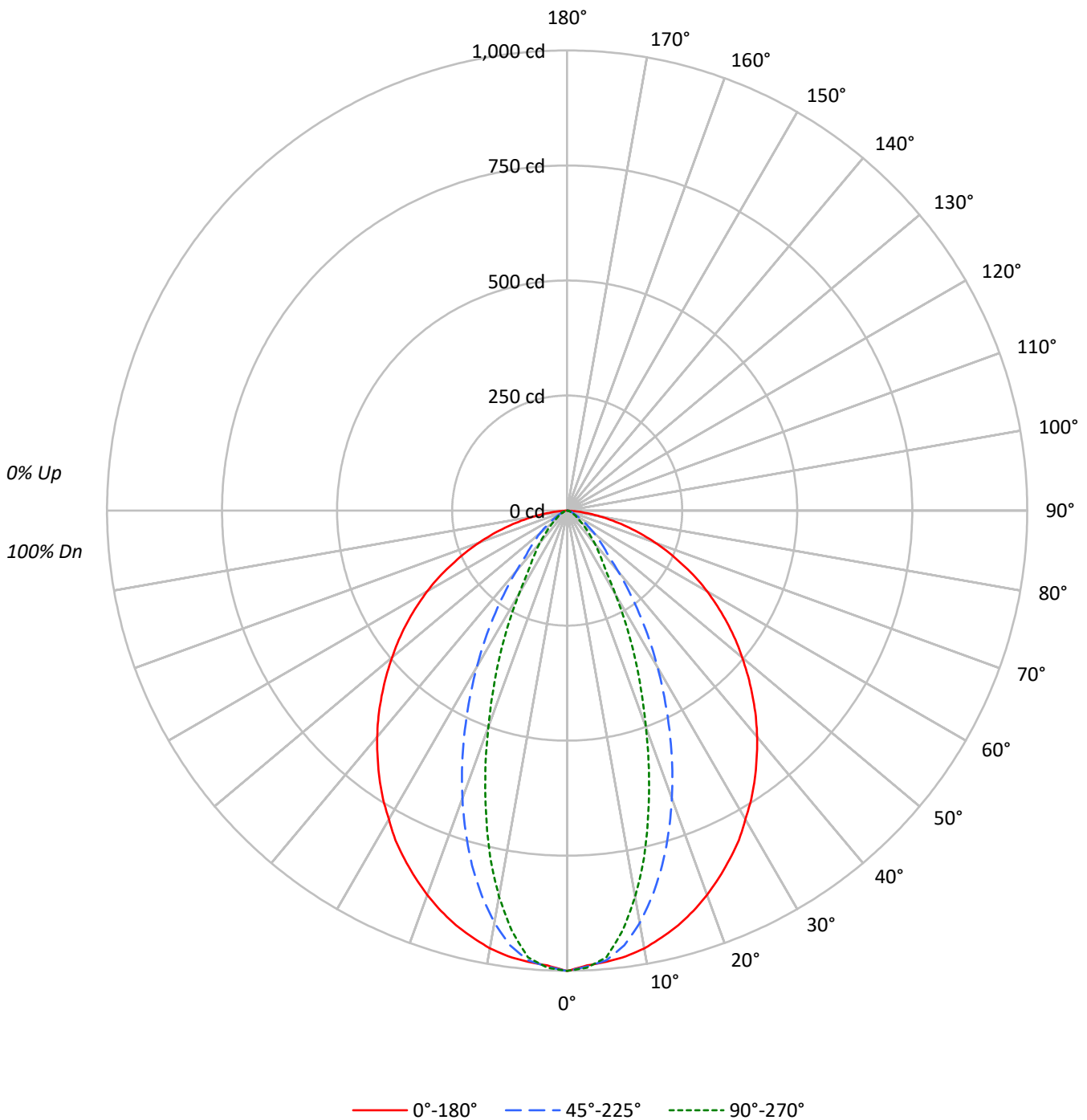
Lumens per Lamp: N/A
Luminaire Lumens: 1146.5 lumens
Efficiency: N/A
Efficacy: 33.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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

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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°	18953	18953	18953
5°	18722	18653	18535
10°	18584	17501	16391
15°	18298	15654	13369
20°	17920	13422	10085
25°	17478	10994	7202
30°	16950	8582	4585
35°	16447	6296	3062
40°	15888	4244	2305
45°	15275	2990	1642
50°	14634	2275	1155
55°	14012	1579	849
60°	13330	1069	697
65°	12364	771	551
70°	11273	609	476
75°	9780	542	359
80°	7757	404	404
85°	4261	543	261

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 15275 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.5	8.0
10°-20°	224.5	19.6
20°-30°	256.4	22.4
30°-40°	217.5	19.0
40°-50°	162.3	14.2
50°-60°	104.9	9.1
60°-70°	58.5	5.1
70°-80°	25.7	2.2
80°-90°	5.3	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°	572.4	49.9
0°-40°	789.9	68.9
0°-60°	1057.0	92.2
0°-90°	1146.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1146.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1000	1000	1000	1000	1000	
5°	984	997	981	971	975	93
15°	933	910	798	714	682	263
25°	836	738	526	385	344	385
35°	711	536	272	148	132	444
45°	570	338	112	72	61	440
55°	424	161	48	29	26	379
65°	276	59	17	14	12	274
75°	134	12	7	6	5	142
85°	20	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°	1000.4	1000.4	1000.4	1000.4	1000.4
2.5°	989.3	1004.1	991.8	991.8	994.2
5°	984.4	996.7	980.8	971.0	974.6
7.5°	977.1	985.7	952.6	923.1	920.7
10°	966.0	969.7	909.7	864.3	852.0
12.5°	950.1	941.5	856.9	793.2	772.3
15°	932.9	909.7	798.1	713.5	681.6
17.5°	912.1	870.4	733.1	630.1	590.9
20°	888.8	830.0	665.7	543.1	500.2
22.5°	863.1	784.6	595.8	461.0	418.0
25°	836.1	738.0	525.9	384.9	344.5
27.5°	807.9	689.0	457.3	316.3	272.2
30°	774.8	638.7	392.3	250.1	209.6
32.5°	744.2	586.0	332.2	193.7	159.4
35°	711.1	535.7	272.2	148.3	132.4
37.5°	676.7	485.5	219.4	125.0	111.6
40°	642.4	435.2	171.6	105.4	93.2
42.5°	606.8	386.2	132.4	88.3	76.0
45°	570.1	338.4	111.6	72.3	61.3
47.5°	533.3	290.6	93.2	57.6	49.0
50°	496.5	245.2	77.2	45.4	39.2
52.5°	461.0	202.3	61.3	36.8	31.9
55°	424.2	160.6	47.8	29.4	25.7
57.5°	387.4	125.0	36.8	24.5	22.1
60°	351.8	94.4	28.2	19.6	18.4
62.5°	315.1	76.0	22.1	15.9	14.7
65°	275.8	58.8	17.2	13.5	12.3
67.5°	240.3	42.9	13.5	11.0	9.8
70°	203.5	29.4	11.0	9.8	8.6
72.5°	168.0	18.4	8.6	7.4	7.4
75°	133.6	12.3	7.4	6.1	4.9
77.5°	101.8	7.4	4.9	4.9	3.7
80°	71.1	4.9	3.7	3.7	3.7
82.5°	44.1	3.7	2.5	2.5	2.5
85°	19.6	1.2	2.5	1.2	1.2
87.5°	3.7	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	18.47	19.79	18.84	20.10	20.42	4.78	6.10	5.15	6.41	6.73
	3H	20.94	22.11	21.32	22.44	22.81	5.63	6.80	6.01	7.13	7.50
	4H	21.90	22.99	22.30	23.34	23.72	5.90	7.00	6.31	7.35	7.73
	6H	22.59	23.59	23.00	23.96	24.35	6.10	7.10	6.51	7.47	7.87
	8H	22.78	23.73	23.21	24.12	24.53	6.18	7.13	6.61	7.52	7.92
	12H	22.86	23.77	23.30	24.15	24.58	6.20	7.11	6.63	7.49	7.92
4H	2H	18.26	19.35	18.66	19.70	20.08	5.36	6.45	5.76	6.80	7.18
	3H	20.74	21.64	21.15	22.04	22.44	6.39	7.28	6.80	7.69	8.09
	4H	21.68	22.49	22.12	22.90	23.35	6.75	7.55	7.19	7.97	8.42
	6H	22.44	23.13	22.90	23.58	24.04	7.05	7.74	7.51	8.19	8.65
	8H	22.68	23.33	23.15	23.77	24.25	7.15	7.80	7.62	8.24	8.71
	12H	22.81	23.38	23.30	23.86	24.34	7.20	7.77	7.68	8.25	8.72
8H	4H	21.55	22.20	22.02	22.64	23.11	7.13	7.77	7.60	8.22	8.69
	6H	22.29	22.82	22.79	23.31	23.79	7.49	8.02	7.99	8.51	8.99
	8H	22.54	23.01	23.06	23.52	24.01	7.64	8.11	8.16	8.62	9.11
	12H	22.69	23.10	23.20	23.59	24.17	7.72	8.13	8.23	8.63	9.20
12H	4H	21.51	22.08	21.99	22.56	23.03	7.25	7.82	7.73	8.30	8.77
	6H	22.23	22.70	22.75	23.22	23.71	7.61	8.08	8.13	8.60	9.09
	8H	22.50	22.91	23.01	23.40	23.98	7.80	8.21	8.31	8.71	9.28