

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: P1055162

Luminaire Tested: S122R3DR-S1005D935-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055162
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-S1005D935-X4F0-XX-UDD-F-S
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

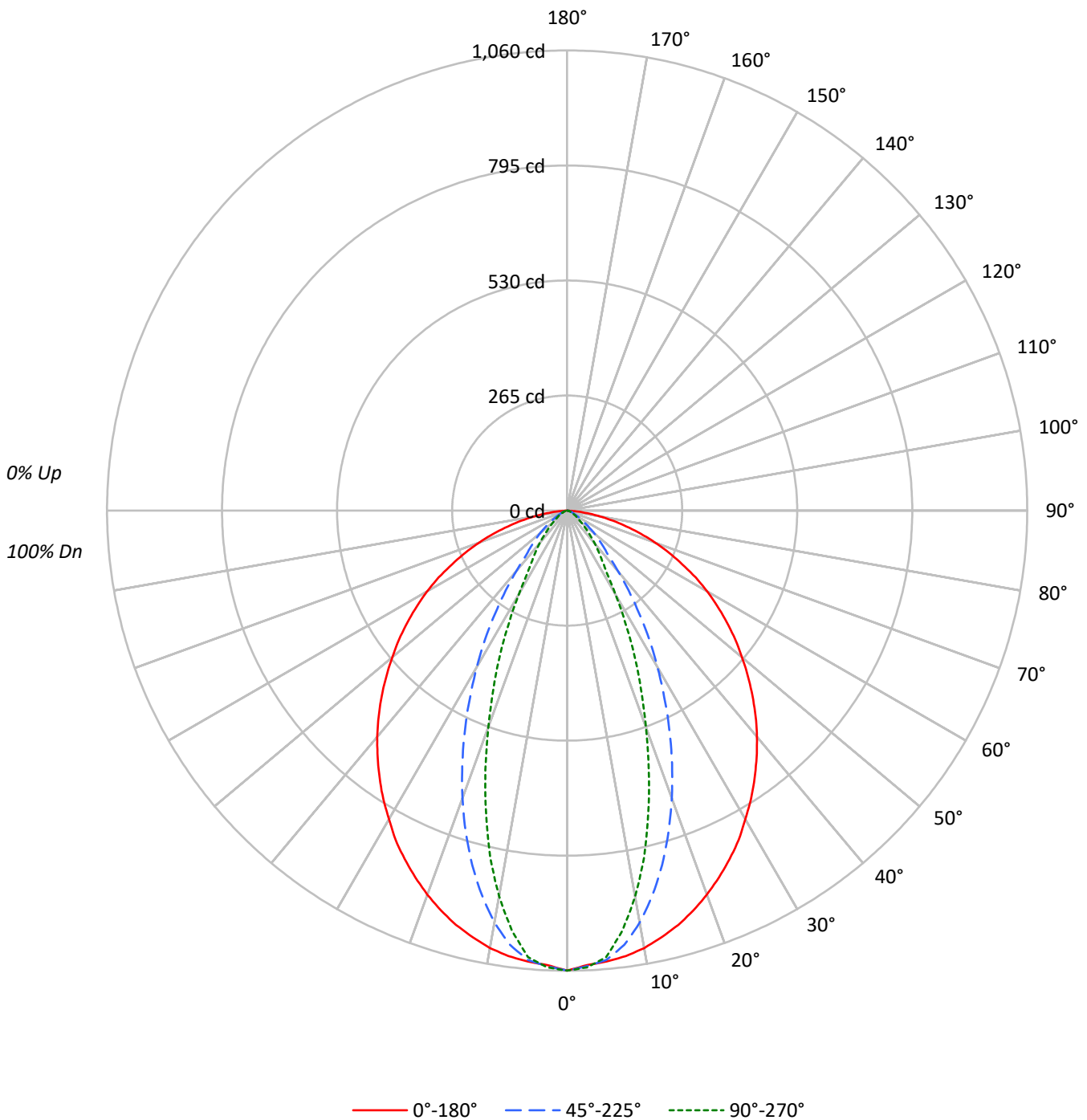
Lumens per Lamp: N/A
Luminaire Lumens: 1214.3 lumens
Efficiency: N/A
Efficacy: 29.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20075	20075	20075
5°	19830	19756	19633
10°	19684	18536	17362
15°	19383	16580	14161
20°	18980	14216	10682
25°	18513	11646	7628
30°	17954	9090	4857
35°	17418	6668	3243
40°	16828	4496	2441
45°	16178	3167	1739
50°	15501	2411	1226
55°	14841	1671	902
60°	14122	1133	739
65°	13099	816	583
70°	11943	648	504
75°	10358	571	381
80°	8216	426	426
85°	4521	565	283

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16178 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.9	8.0
10°-20°	237.8	19.6
20°-30°	271.6	22.4
30°-40°	230.3	19.0
40°-50°	171.9	14.2
50°-60°	111.1	9.1
60°-70°	61.9	5.1
70°-80°	27.2	2.2
80°-90°	5.6	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°	606.3	49.9
0°-40°	836.6	68.9
0°-60°	1119.6	92.2
0°-90°	1214.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1214.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1060	1060	1060	1060	1060	
5°	1043	1056	1039	1028	1032	99
15°	988	964	845	756	722	278
25°	886	782	557	408	365	408
35°	753	568	288	157	140	471
45°	604	358	118	77	65	466
55°	449	170	51	31	27	402
65°	292	62	18	14	13	290
75°	142	13	8	6	5	151
85°	21	1	3	1	1	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1059.6	1059.6	1059.6	1059.6	1059.6
2.5°	1047.9	1063.5	1050.5	1050.5	1053.1
5°	1042.7	1055.7	1038.8	1028.4	1032.3
7.5°	1034.9	1044.0	1008.9	977.8	975.2
10°	1023.2	1027.1	963.5	915.5	902.5
12.5°	1006.4	997.3	907.7	840.1	818.1
15°	988.2	963.5	845.3	755.7	722.0
17.5°	966.1	921.9	776.5	667.4	625.9
20°	941.4	879.1	705.1	575.2	529.8
22.5°	914.2	831.1	631.1	488.2	442.8
25°	885.6	781.7	557.1	407.7	364.9
27.5°	855.7	729.8	484.3	335.0	288.3
30°	820.7	676.5	415.5	264.9	222.0
32.5°	788.2	620.7	351.9	205.2	168.8
35°	753.1	567.5	288.3	157.1	140.2
37.5°	716.8	514.2	232.4	132.4	118.2
40°	680.4	461.0	181.8	111.7	98.7
42.5°	642.8	409.0	140.2	93.5	80.5
45°	603.8	358.4	118.2	76.6	64.9
47.5°	564.9	307.7	98.7	61.0	51.9
50°	525.9	259.7	81.8	48.0	41.6
52.5°	488.2	214.3	64.9	39.0	33.8
55°	449.3	170.1	50.6	31.2	27.3
57.5°	410.3	132.4	39.0	26.0	23.4
60°	372.7	100.0	29.9	20.8	19.5
62.5°	333.7	80.5	23.4	16.9	15.6
65°	292.2	62.3	18.2	14.3	13.0
67.5°	254.5	45.4	14.3	11.7	10.4
70°	215.6	31.2	11.7	10.4	9.1
72.5°	177.9	19.5	9.1	7.8	7.8
75°	141.5	13.0	7.8	6.5	5.2
77.5°	107.8	7.8	5.2	5.2	3.9
80°	75.3	5.2	3.9	3.9	3.9
82.5°	46.7	3.9	2.6	2.6	2.6
85°	20.8	1.3	2.6	1.3	1.3
87.5°	3.9	1.3	1.3	1.3	1.3
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	18.67	19.99	19.04	20.30	20.62	4.99	6.31	5.36	6.62	6.94
	3H	21.14	22.31	21.52	22.64	23.01	5.84	7.01	6.22	7.34	7.71
	4H	22.10	23.19	22.50	23.54	23.92	6.12	7.21	6.52	7.56	7.94
	6H	22.79	23.79	23.20	24.16	24.55	6.31	7.31	6.72	7.68	8.07
	8H	22.98	23.93	23.41	24.32	24.73	6.38	7.33	6.81	7.72	8.13
	12H	23.06	23.97	23.49	24.35	24.78	6.41	7.31	6.84	7.70	8.13
4H	2H	18.46	19.55	18.86	19.90	20.28	5.56	6.65	5.97	7.01	7.39
	3H	20.94	21.84	21.35	22.24	22.64	6.59	7.49	7.01	7.89	8.30
	4H	21.88	22.68	22.32	23.10	23.55	6.96	7.76	7.40	8.18	8.62
	6H	22.64	23.33	23.10	23.78	24.24	7.25	7.94	7.72	8.39	8.86
	8H	22.88	23.53	23.35	23.97	24.44	7.35	8.00	7.82	8.44	8.92
	12H	23.01	23.58	23.50	24.06	24.54	7.40	7.97	7.88	8.45	8.92
8H	4H	21.75	22.40	22.22	22.84	23.31	7.33	7.98	7.80	8.43	8.90
	6H	22.49	23.02	22.99	23.51	23.99	7.69	8.22	8.20	8.72	9.20
	8H	22.74	23.21	23.26	23.72	24.21	7.83	8.30	8.36	8.82	9.31
	12H	22.89	23.30	23.40	23.79	24.37	7.92	8.33	8.43	8.83	9.40
12H	4H	21.71	22.28	22.19	22.76	23.23	7.46	8.02	7.94	8.51	8.98
	6H	22.43	22.90	22.95	23.42	23.91	7.81	8.28	8.34	8.80	9.29
	8H	22.69	23.11	23.21	23.60	24.17	7.99	8.41	8.51	8.90	9.47