

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: P1055156

Luminaire Tested: S122R3DR-S1005D927-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055156
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-S1005D927-X4F0-XX-UDD-F-S
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

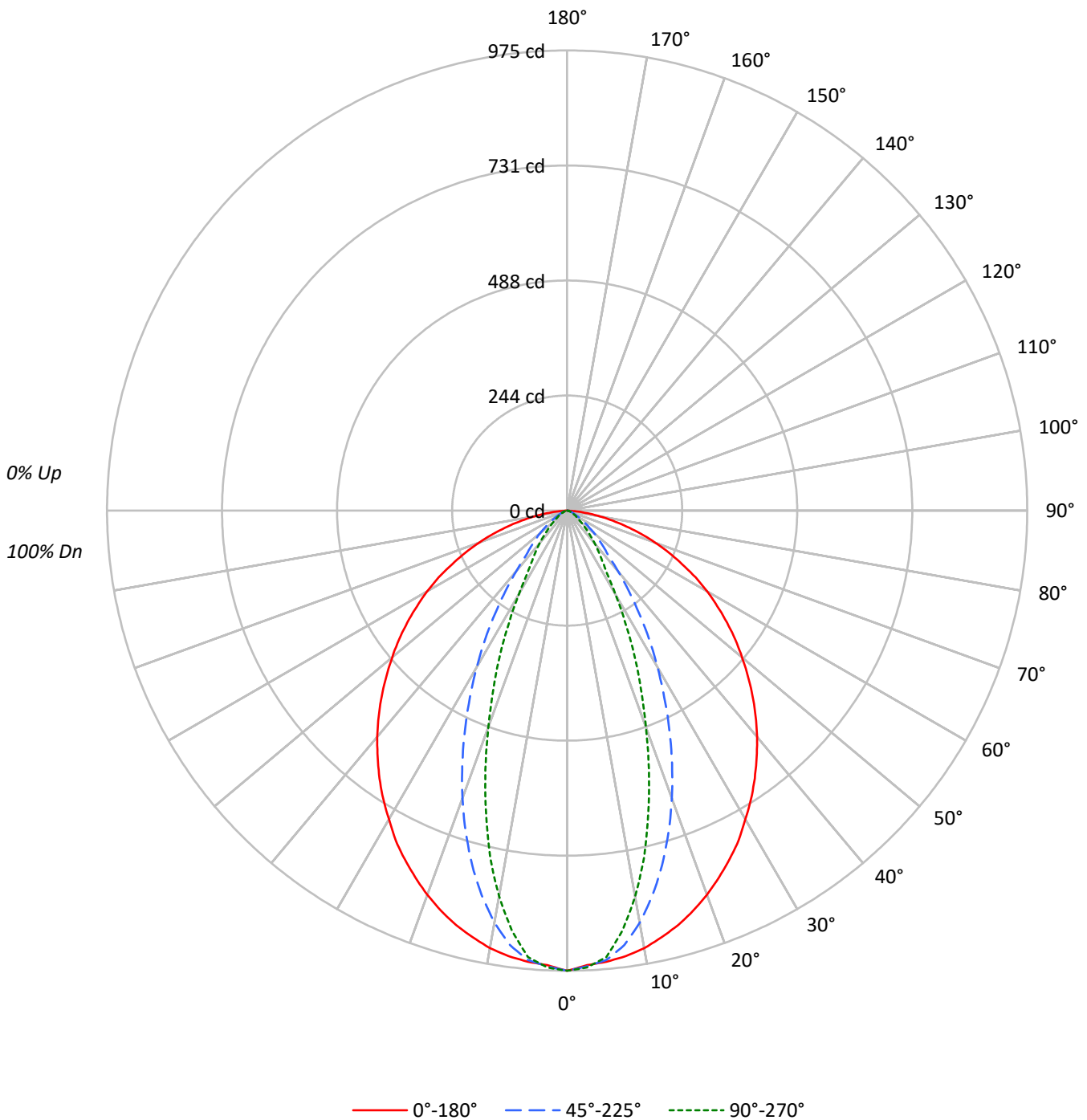
Lumens per Lamp: N/A
Luminaire Lumens: 1117.3 lumens
Efficiency: N/A
Efficacy: 26.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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	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°	18470	18470	18470
5°	18246	18178	18064
10°	18111	17055	15973
15°	17833	15256	13030
20°	17464	13079	9827
25°	17033	10714	7018
30°	16519	8363	4469
35°	16026	6134	2984
40°	15482	4138	2246
45°	14884	2912	1600
50°	14263	2219	1126
55°	13655	1539	829
60°	12993	1042	678
65°	12050	749	533
70°	10985	598	465
75°	9531	527	351
80°	7561	393	393
85°	4152	522	261

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14884 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.1	8.0
10°-20°	218.8	19.6
20°-30°	249.9	22.4
30°-40°	211.9	19.0
40°-50°	158.1	14.2
50°-60°	102.2	9.1
60°-70°	57.0	5.1
70°-80°	25.0	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°	557.8	49.9
0°-40°	769.7	68.9
0°-60°	1030.1	92.2
0°-90°	1117.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1117.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	975	975	975	975	975	
5°	959	971	956	946	950	91
15°	909	886	778	695	664	256
25°	815	719	512	375	336	375
35°	693	522	265	145	129	433
45°	556	330	109	70	60	429
55°	413	156	47	29	25	370
65°	269	57	17	13	12	267
75°	130	12	7	6	5	139
85°	19	1	2	1	1	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	974.9	974.9	974.9	974.9	974.9
2.5°	964.1	978.5	966.5	966.5	968.9
5°	959.4	971.3	955.8	946.2	949.8
7.5°	952.2	960.6	928.3	899.6	897.2
10°	941.4	945.0	886.5	842.3	830.3
12.5°	925.9	917.6	835.1	773.0	752.7
15°	909.2	886.5	777.8	695.3	664.3
17.5°	888.9	848.3	714.4	614.1	575.9
20°	866.2	808.8	648.7	529.3	487.4
22.5°	841.1	764.6	580.6	449.2	407.4
25°	814.8	719.2	512.5	375.1	335.7
27.5°	787.3	671.4	445.6	308.2	265.2
30°	755.1	622.5	382.3	243.7	204.3
32.5°	725.2	571.1	323.8	188.8	155.3
35°	692.9	522.1	265.2	144.6	129.0
37.5°	659.5	473.1	213.9	121.9	108.7
40°	626.0	424.1	167.3	102.7	90.8
42.5°	591.4	376.3	129.0	86.0	74.1
45°	555.5	329.7	108.7	70.5	59.7
47.5°	519.7	283.2	90.8	56.2	47.8
50°	483.9	238.9	75.3	44.2	38.2
52.5°	449.2	197.1	59.7	35.8	31.1
55°	413.4	156.5	46.6	28.7	25.1
57.5°	377.5	121.9	35.8	23.9	21.5
60°	342.9	92.0	27.5	19.1	17.9
62.5°	307.0	74.1	21.5	15.5	14.3
65°	268.8	57.3	16.7	13.1	11.9
67.5°	234.2	41.8	13.1	10.8	9.6
70°	198.3	28.7	10.8	9.6	8.4
72.5°	163.7	17.9	8.4	7.2	7.2
75°	130.2	11.9	7.2	6.0	4.8
77.5°	99.2	7.2	4.8	4.8	3.6
80°	69.3	4.8	3.6	3.6	3.6
82.5°	43.0	3.6	2.4	2.4	2.4
85°	19.1	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	18.38	19.70	18.75	20.02	20.33	4.69	6.01	5.06	6.33	6.64
	3H	20.85	22.02	21.23	22.35	22.72	5.55	6.72	5.93	7.05	7.42
	4H	21.81	22.90	22.21	23.25	23.63	5.83	6.92	6.23	7.27	7.65
	6H	22.50	23.50	22.91	23.87	24.26	6.02	7.02	6.44	7.39	7.79
	8H	22.69	23.64	23.12	24.03	24.44	6.10	7.05	6.53	7.44	7.84
	12H	22.77	23.68	23.21	24.07	24.50	6.12	7.03	6.55	7.41	7.84
4H	2H	18.17	19.26	18.57	19.61	20.00	5.26	6.36	5.67	6.71	7.09
	3H	20.65	21.55	21.07	21.95	22.35	6.30	7.20	6.72	7.60	8.01
	4H	21.60	22.40	22.03	22.82	23.26	6.68	7.48	7.11	7.89	8.34
	6H	22.35	23.04	22.81	23.49	23.95	6.97	7.66	7.43	8.11	8.57
	8H	22.59	23.24	23.06	23.69	24.16	7.07	7.71	7.54	8.16	8.63
	12H	22.72	23.29	23.21	23.77	24.25	7.11	7.68	7.60	8.17	8.64
8H	4H	21.46	22.11	21.93	22.55	23.03	7.05	7.69	7.52	8.14	8.61
	6H	22.20	22.73	22.70	23.22	23.71	7.41	7.94	7.91	8.43	8.91
	8H	22.45	22.92	22.97	23.43	23.93	7.55	8.02	8.07	8.54	9.03
	12H	22.60	23.01	23.11	23.51	24.08	7.63	8.05	8.15	8.54	9.11
12H	4H	21.42	21.99	21.90	22.47	22.94	7.17	7.74	7.66	8.22	8.70
	6H	22.14	22.61	22.66	23.13	23.62	7.53	8.00	8.05	8.52	9.01
	8H	22.41	22.82	22.92	23.32	23.89	7.71	8.12	8.23	8.62	9.19