

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: P1055159

Luminaire Tested: S122R3DR-S1005D930-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055159
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-S1005D930-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, 90 CRI LEDS
Ballast/Driver: -

Summary

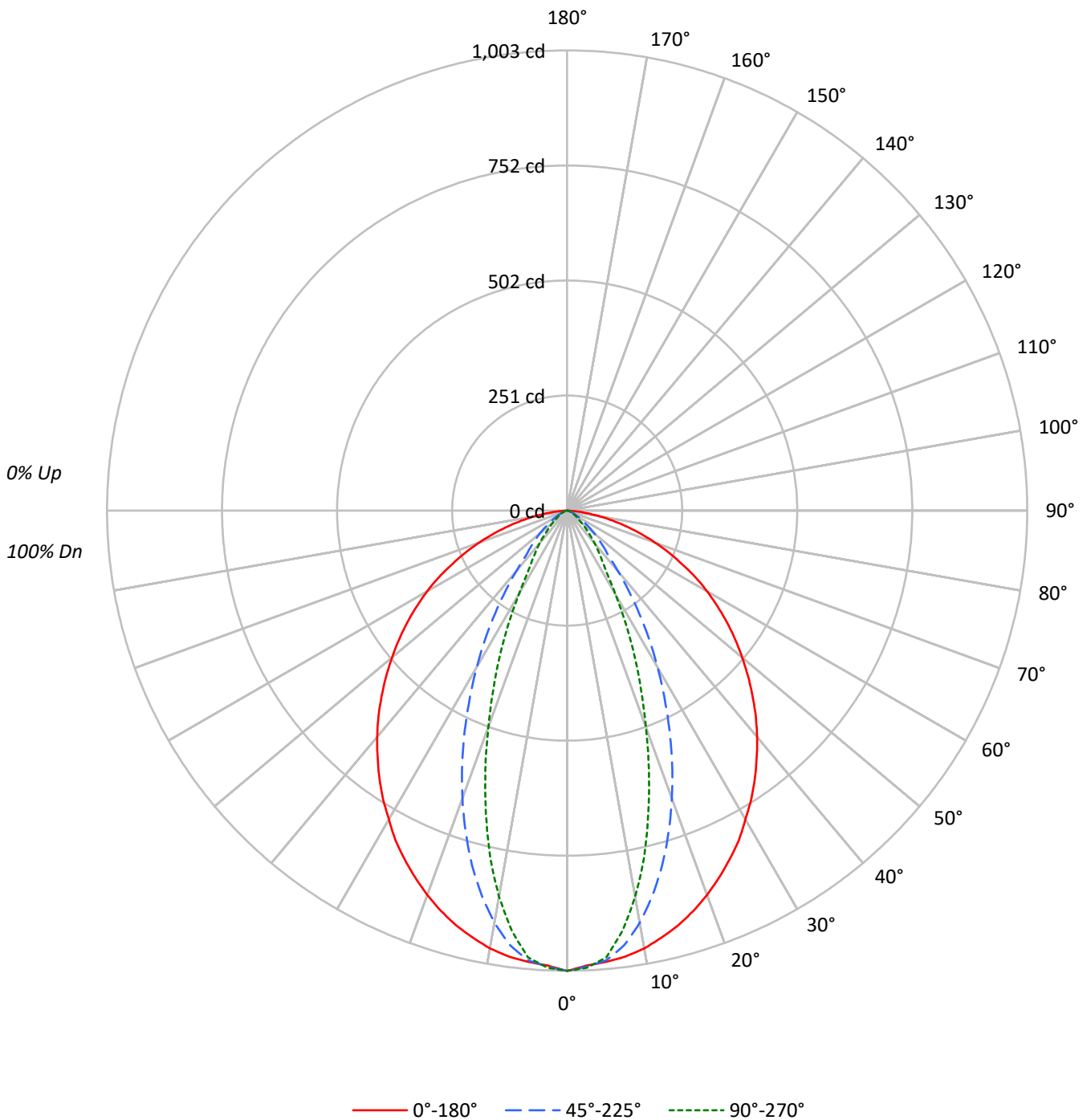
Lumens per Lamp: N/A
Luminaire Lumens: 1149.8 lumens
Efficiency: N/A
Efficacy: 27.4 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	19008	19008	19008
5°	18779	18708	18590
10°	18640	17553	16441
15°	18353	15701	13410
20°	17974	13462	10115
25°	17530	11027	7222
30°	17000	8609	4601
35°	16495	6314	3071
40°	15935	4256	2310
45°	15321	2998	1648
50°	14678	2284	1158
55°	14051	1585	852
60°	13372	1072	697
65°	12404	771	551
70°	11306	615	476
75°	9809	542	359
80°	7779	404	404
85°	4282	543	261

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 15321 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.7	8.0
10°-20°	225.2	19.6
20°-30°	257.2	22.4
30°-40°	218.1	19.0
40°-50°	162.7	14.2
50°-60°	105.2	9.1
60°-70°	58.6	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°	574.1	49.9
0°-40°	792.2	68.9
0°-60°	1060.1	92.2
0°-90°	1149.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1149.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1003	1003	1003	1003	1003	
5°	987	1000	984	974	978	94
15°	936	912	800	716	684	263
25°	839	740	528	386	346	386
35°	713	537	273	149	133	446
45°	572	339	112	72	62	441
55°	425	161	48	30	26	380
65°	277	59	17	14	12	275
75°	134	12	7	6	5	143
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°	1003.3	1003.3	1003.3	1003.3	1003.3
2.5°	992.3	1007.0	994.7	994.7	997.2
5°	987.4	999.7	983.7	973.8	977.5
7.5°	980.0	988.6	955.4	925.9	923.4
10°	968.9	972.6	912.4	866.9	854.6
12.5°	952.9	944.3	859.5	795.5	774.6
15°	935.7	912.4	800.5	715.6	683.7
17.5°	914.8	873.0	735.3	632.0	592.7
20°	891.5	832.4	667.7	544.7	501.7
22.5°	865.6	786.9	597.6	462.3	419.3
25°	838.6	740.2	527.5	386.1	345.5
27.5°	810.3	691.0	458.6	317.2	273.0
30°	777.1	640.6	393.5	250.8	210.3
32.5°	746.4	587.7	333.2	194.3	159.8
35°	713.2	537.3	273.0	148.8	132.8
37.5°	678.7	486.9	220.1	125.4	111.9
40°	644.3	436.5	172.1	105.7	93.4
42.5°	608.6	387.3	132.8	88.5	76.2
45°	571.8	339.4	111.9	72.5	61.5
47.5°	534.9	291.4	93.4	57.8	49.2
50°	498.0	245.9	77.5	45.5	39.3
52.5°	462.3	202.9	61.5	36.9	32.0
55°	425.4	161.1	48.0	29.5	25.8
57.5°	388.6	125.4	36.9	24.6	22.1
60°	352.9	94.7	28.3	19.7	18.4
62.5°	316.0	76.2	22.1	16.0	14.8
65°	276.7	59.0	17.2	13.5	12.3
67.5°	241.0	43.0	13.5	11.1	9.8
70°	204.1	29.5	11.1	9.8	8.6
72.5°	168.5	18.4	8.6	7.4	7.4
75°	134.0	12.3	7.4	6.1	4.9
77.5°	102.1	7.4	4.9	4.9	3.7
80°	71.3	4.9	3.7	3.7	3.7
82.5°	44.3	3.7	2.5	2.5	2.5
85°	19.7	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	18.48	19.80	18.85	20.12	20.43	4.79	6.11	5.16	6.43	6.74
	3H	20.95	22.12	21.33	22.45	22.82	5.64	6.81	6.02	7.14	7.51
	4H	21.91	23.00	22.31	23.35	23.73	5.92	7.01	6.32	7.36	7.74
	6H	22.60	23.60	23.01	23.97	24.36	6.11	7.11	6.52	7.48	7.88
	8H	22.79	23.74	23.22	24.13	24.54	6.19	7.14	6.62	7.53	7.93
	12H	22.87	23.78	23.31	24.17	24.60	6.21	7.12	6.64	7.50	7.93
4H	2H	18.27	19.36	18.67	19.71	20.09	5.36	6.46	5.77	6.81	7.19
	3H	20.75	21.65	21.16	22.05	22.45	6.39	7.29	6.81	7.69	8.10
	4H	21.70	22.50	22.13	22.91	23.36	6.76	7.56	7.19	7.98	8.42
	6H	22.45	23.14	22.91	23.59	24.05	7.05	7.74	7.52	8.19	8.66
	8H	22.69	23.34	23.16	23.79	24.26	7.16	7.80	7.62	8.25	8.72
	12H	22.82	23.39	23.31	23.87	24.35	7.20	7.77	7.69	8.25	8.73
8H	4H	21.56	22.21	22.03	22.65	23.13	7.13	7.78	7.60	8.22	8.69
	6H	22.30	22.83	22.80	23.32	23.80	7.49	8.02	8.00	8.52	9.00
	8H	22.55	23.02	23.07	23.53	24.02	7.64	8.11	8.16	8.62	9.12
	12H	22.70	23.11	23.21	23.61	24.18	7.72	8.13	8.24	8.63	9.20
12H	4H	21.52	22.09	22.00	22.57	23.04	7.25	7.82	7.74	8.31	8.78
	6H	22.24	22.71	22.76	23.23	23.72	7.61	8.09	8.14	8.60	9.09
	8H	22.51	22.92	23.02	23.41	23.99	7.80	8.21	8.31	8.71	9.28