

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: P1055155

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055155
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-2)
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-B
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

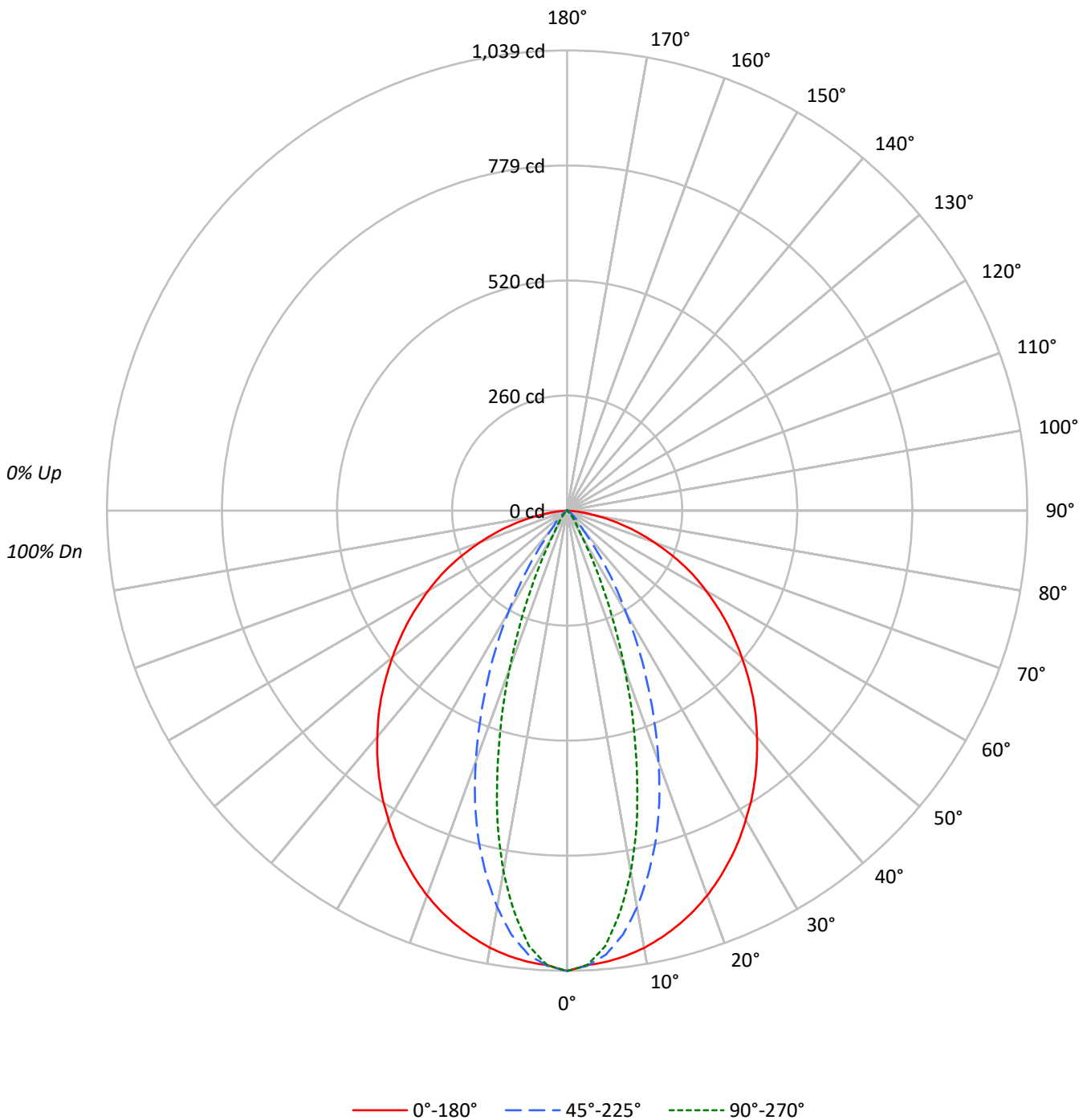
Lumens per Lamp: N/A
Luminaire Lumens: 945.7 lumens
Efficiency: N/A
Efficacy: 22.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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																		
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	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													100															
1	112	109	106	103	110	106	104	101	102	100	98	99	97	95	95	94	92	91													91															
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	81													81															
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74													74															
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67													67															
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	66	63	61													61															
6	82	72	65	60	80	71	64	59	69	63	59	68	62	59	66	62	58	56													56															
7	77	67	60	55	76	66	59	55	65	59	55	63	58	54	62	57	54	52													52															
8	73	62	56	51	72	62	55	51	61	55	51	60	54	50	59	54	50	49													49															
9	70	59	52	48	68	58	52	47	57	51	47	56	51	47	55	50	47	45													45															
10	66	55	49	45	65	55	49	44	54	48	44	53	48	44	52	47	44	43													43															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19692	19692	19692
5°	19450	19132	18769
10°	19284	17491	15929
15°	19004	15138	11927
20°	18644	12164	7635
25°	18183	8916	3922
30°	17641	5828	1280
35°	17104	3233	747
40°	16489	1301	413
45°	15878	865	161
50°	15176	492	71
55°	14484	238	40
60°	13717	91	0
65°	12906	54	0
70°	11583	66	0
75°	9970	88	0
80°	7561	0	0
85°	3109	261	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 15878 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.2	9.9
10°-20°	216.5	22.9
20°-30°	219.8	23.2
30°-40°	164.9	17.4
40°-50°	115.5	12.2
50°-60°	70.7	7.5
60°-70°	42.1	4.5
70°-80°	19.4	2.1
80°-90°	3.5	0.4
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°	529.5	56.0
0°-40°	694.5	73.4
0°-60°	880.7	93.1
0°-90°	945.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	945.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1039	1039	1039	1039	1039	
5°	1023	1032	1006	987	987	97
15°	969	916	772	654	608	273
25°	870	717	426	244	188	400
35°	740	482	140	42	32	462
45°	593	254	32	10	6	457
55°	438	78	7	2	1	392
65°	288	23	1	1	0	284
75°	136	2	1	1	0	145
85°	14	0	1	1	0	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1039.4	1039.4	1039.4	1039.4	1039.4
2.5°	1027.5	1043.0	1028.7	1026.3	1027.5
5°	1022.7	1032.3	1006.0	986.9	986.9
7.5°	1014.3	1014.3	965.3	925.9	914.0
10°	1002.4	989.2	909.2	845.9	828.0
12.5°	986.9	955.8	843.5	753.9	725.2
15°	968.9	916.4	771.8	653.5	608.1
17.5°	948.6	872.2	691.8	544.8	492.2
20°	924.7	824.4	603.3	433.7	378.7
22.5°	898.4	771.8	513.7	334.5	276.0
25°	869.8	716.8	426.5	243.7	187.6
27.5°	839.9	659.5	346.5	167.3	114.7
30°	806.4	599.8	266.4	99.2	58.5
32.5°	774.2	542.4	199.5	53.8	43.0
35°	739.5	481.5	139.8	41.8	32.3
37.5°	703.7	424.1	86.0	31.1	23.9
40°	666.7	365.6	52.6	22.7	16.7
42.5°	630.8	310.6	41.8	15.5	10.8
45°	592.6	254.5	32.3	9.6	6.0
47.5°	553.2	203.1	23.9	6.0	3.6
50°	514.9	157.7	16.7	3.6	2.4
52.5°	476.7	115.9	10.8	2.4	1.2
55°	438.5	77.7	7.2	2.4	1.2
57.5°	400.2	55.0	4.8	1.2	1.2
60°	362.0	43.0	2.4	1.2	0.0
62.5°	326.2	33.5	2.4	1.2	1.2
65°	287.9	22.7	1.2	1.2	0.0
67.5°	247.3	14.3	1.2	1.2	0.0
70°	209.1	8.4	1.2	1.2	0.0
72.5°	172.0	4.8	1.2	1.2	0.0
75°	136.2	2.4	1.2	1.2	0.0
77.5°	101.6	1.2	0.0	1.2	0.0
80°	69.3	0.0	0.0	1.2	0.0
82.5°	40.6	0.0	0.0	1.2	0.0
85°	14.3	0.0	1.2	1.2	0.0
87.5°	0.0	0.0	1.2	1.2	0.0
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	16.57	17.83	16.93	18.14	18.45	0.00	0.00	0.00	0.00	0.00
	3H	20.31	21.43	20.69	21.76	22.12	0.00	0.00	0.00	0.00	0.00
	4H	21.62	22.66	22.02	23.01	23.39	0.00	0.00	0.00	0.00	0.00
	6H	22.47	23.43	22.89	23.80	24.19	0.00	0.00	0.00	0.00	0.00
	8H	22.69	23.59	23.12	23.98	24.39	0.00	0.00	0.00	0.00	0.00
	12H	22.75	23.61	23.18	24.00	24.43	0.00	0.00	0.00	0.00	0.00
4H	2H	16.32	17.36	16.72	17.71	18.10	0.00	0.00	0.00	0.00	0.00
	3H	20.06	20.91	20.47	21.32	21.72	0.00	0.00	0.00	0.00	0.00
	4H	21.36	22.12	21.79	22.54	22.98	0.00	0.00	0.00	0.00	0.00
	6H	22.28	22.93	22.74	23.38	23.85	0.00	0.00	0.00	0.00	0.00
	8H	22.53	23.15	23.01	23.59	24.07	0.00	0.00	0.00	0.00	0.00
	12H	22.64	23.17	23.12	23.66	24.13	0.00	0.00	0.00	0.00	0.00
8H	4H	21.21	21.82	21.68	22.27	22.74	0.00	0.00	0.00	0.00	0.00
	6H	22.11	22.61	22.62	23.11	23.59	0.00	0.00	0.00	0.00	0.00
	8H	22.37	22.82	22.90	23.33	23.82	0.00	0.00	0.00	0.00	0.00
	12H	22.49	22.88	23.00	23.37	23.95	0.00	0.00	0.00	0.00	0.00
12H	4H	21.16	21.70	21.65	22.19	22.66	0.00	0.00	0.00	0.00	0.00
	6H	22.05	22.49	22.57	23.01	23.50	0.00	0.00	0.00	0.00	0.00
	8H	22.33	22.72	22.84	23.21	23.78	0.00	0.00	0.00	0.00	0.00