

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: P1055237

Luminaire Tested: S122R3DR-S675D927-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055237
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-S675D927-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

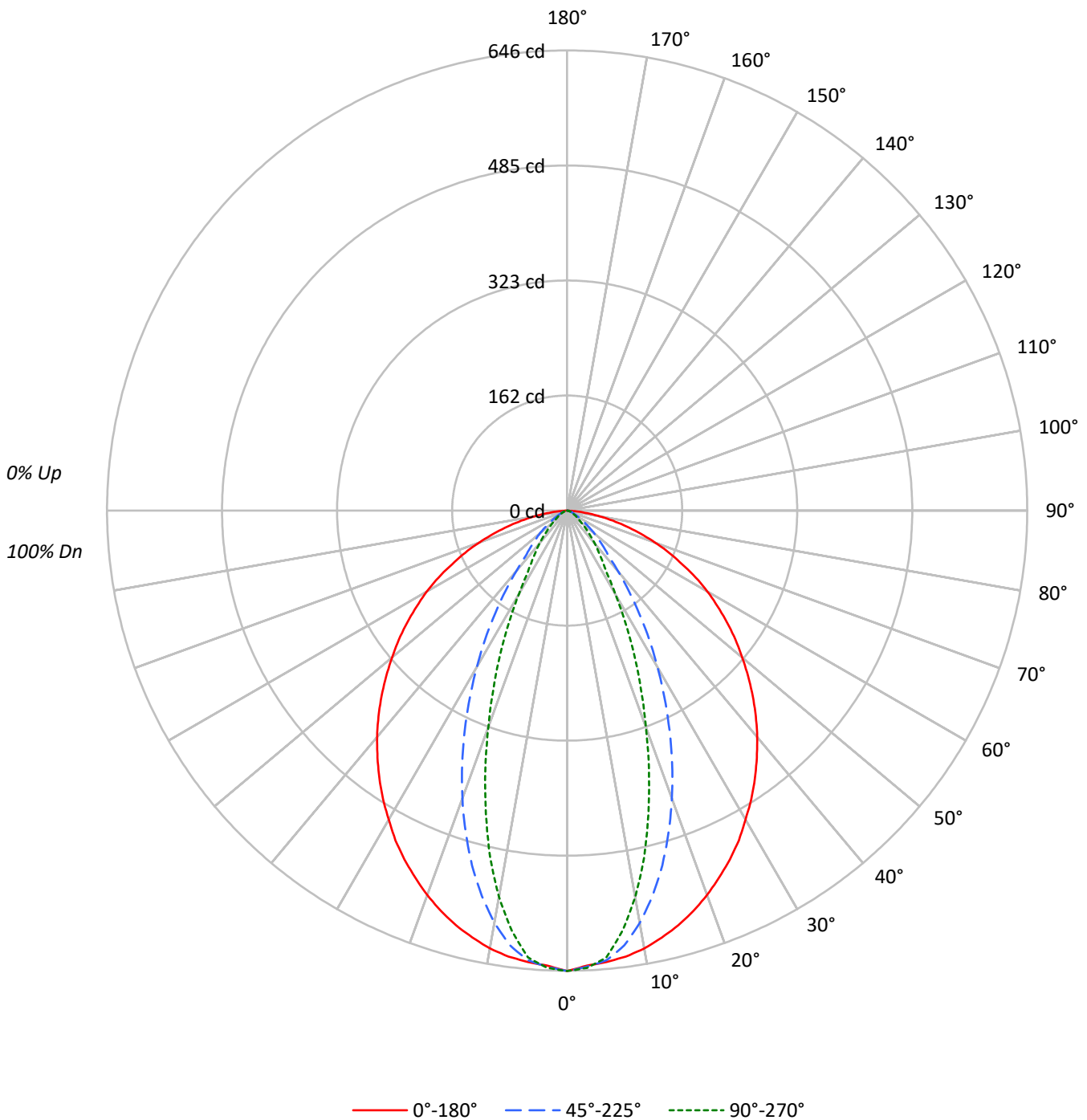
Lumens per Lamp: N/A
Luminaire Lumens: 740.8 lumens
Efficiency: N/A
Efficacy: 28.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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	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	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90					90			
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80					80			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71					71			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64					64			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58					58			
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53					53			
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49					49			
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47	45					45			
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42					42			
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39					39			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12247	12247	12247
5°	12097	12052	11978
10°	12008	11308	10593
15°	11823	10115	8640
20°	11579	8674	6516
25°	11295	7103	4653
30°	10954	5546	2964
35°	10628	4068	1980
40°	10266	2743	1489
45°	9871	1932	1061
50°	9455	1471	746
55°	9054	1021	548
60°	8617	690	451
65°	7989	498	354
70°	7284	393	305
75°	6317	351	234
80°	5008	262	262
85°	2761	348	174

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9871 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.1	8.0
10°-20°	145.1	19.6
20°-30°	165.7	22.4
30°-40°	140.5	19.0
40°-50°	104.8	14.2
50°-60°	67.8	9.1
60°-70°	37.8	5.1
70°-80°	16.6	2.2
80°-90°	3.4	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°	369.9	49.9
0°-40°	510.4	68.9
0°-60°	683.0	92.2
0°-90°	740.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	740.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	646	646	646	646	646	
5°	636	644	634	627	630	60
15°	603	588	516	461	440	170
25°	540	477	340	249	223	249
35°	460	346	176	96	86	287
45°	368	219	72	47	40	284
55°	274	104	31	19	17	245
65°	178	38	11	9	8	177
75°	86	8	5	4	3	92
85°	13	1	2	1	1	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	646.4	646.4	646.4	646.4	646.4
2.5°	639.3	648.8	640.9	640.9	642.5
5°	636.1	644.0	633.7	627.4	629.8
7.5°	631.4	636.9	615.5	596.5	594.9
10°	624.2	626.6	587.8	558.5	550.6
12.5°	613.9	608.4	553.7	512.5	499.1
15°	602.8	587.8	515.7	461.0	440.5
17.5°	589.4	562.4	473.7	407.2	381.8
20°	574.3	536.3	430.2	350.9	323.2
22.5°	557.7	507.0	385.0	297.9	270.1
25°	540.3	476.9	339.8	248.7	222.6
27.5°	522.0	445.2	295.5	204.4	175.9
30°	500.7	412.7	253.5	161.6	135.5
32.5°	480.9	378.7	214.7	125.2	103.0
35°	459.5	346.2	175.9	95.9	85.6
37.5°	437.3	313.7	141.8	80.8	72.1
40°	415.1	281.2	110.9	68.1	60.2
42.5°	392.1	249.5	85.6	57.0	49.1
45°	368.4	218.6	72.1	46.7	39.6
47.5°	344.6	187.7	60.2	37.2	31.7
50°	320.8	158.4	49.9	29.3	25.3
52.5°	297.9	130.7	39.6	23.8	20.6
55°	274.1	103.8	30.9	19.0	16.6
57.5°	250.3	80.8	23.8	15.8	14.3
60°	227.4	61.0	18.2	12.7	11.9
62.5°	203.6	49.1	14.3	10.3	9.5
65°	178.2	38.0	11.1	8.7	7.9
67.5°	155.3	27.7	8.7	7.1	6.3
70°	131.5	19.0	7.1	6.3	5.5
72.5°	108.5	11.9	5.5	4.8	4.8
75°	86.3	7.9	4.8	4.0	3.2
77.5°	65.8	4.8	3.2	3.2	2.4
80°	45.9	3.2	2.4	2.4	2.4
82.5°	28.5	2.4	1.6	1.6	1.6
85°	12.7	0.8	1.6	0.8	0.8
87.5°	2.4	0.8	0.8	0.8	0.8
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	16.96	18.27	17.32	18.59	18.90	3.25	4.57	3.62	4.89	5.20
	3H	19.42	20.60	19.80	20.93	21.29	4.10	5.27	4.48	5.60	5.96
	4H	20.38	21.47	20.78	21.82	22.21	4.38	5.47	4.78	5.82	6.21
	6H	21.07	22.07	21.48	22.44	22.84	4.58	5.58	4.99	5.95	6.35
	8H	21.26	22.21	21.69	22.60	23.01	4.66	5.61	5.09	6.00	6.40
	12H	21.35	22.25	21.78	22.64	23.07	4.68	5.59	5.11	5.97	6.40
4H	2H	16.74	17.83	17.14	18.18	18.57	3.83	4.92	4.23	5.27	5.66
	3H	19.22	20.12	19.64	20.52	20.93	4.86	5.75	5.27	6.15	6.56
	4H	20.17	20.97	20.60	21.39	21.83	5.23	6.03	5.67	6.45	6.90
	6H	20.92	21.61	21.39	22.06	22.53	5.53	6.22	6.00	6.67	7.14
	8H	21.17	21.81	21.64	22.26	22.73	5.63	6.28	6.10	6.73	7.20
	12H	21.29	21.86	21.78	22.35	22.82	5.68	6.25	6.17	6.73	7.21
8H	4H	20.03	20.68	20.50	21.13	21.60	5.61	6.25	6.08	6.70	7.17
	6H	20.77	21.30	21.28	21.80	22.28	5.98	6.50	6.48	7.00	7.48
	8H	21.02	21.49	21.54	22.00	22.50	6.12	6.59	6.64	7.11	7.60
	12H	21.17	21.58	21.68	22.08	22.65	6.21	6.62	6.72	7.11	7.69
12H	4H	19.99	20.56	20.48	21.04	21.52	5.73	6.30	6.22	6.78	7.26
	6H	20.71	21.18	21.24	21.70	22.19	6.10	6.57	6.62	7.08	7.58
	8H	20.98	21.39	21.49	21.89	22.46	6.28	6.70	6.80	7.19	7.76