

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: P1055246

Luminaire Tested: S122R3DR-S675D940-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055246
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-S675D940-X4F0-XX-UDD-F-S
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

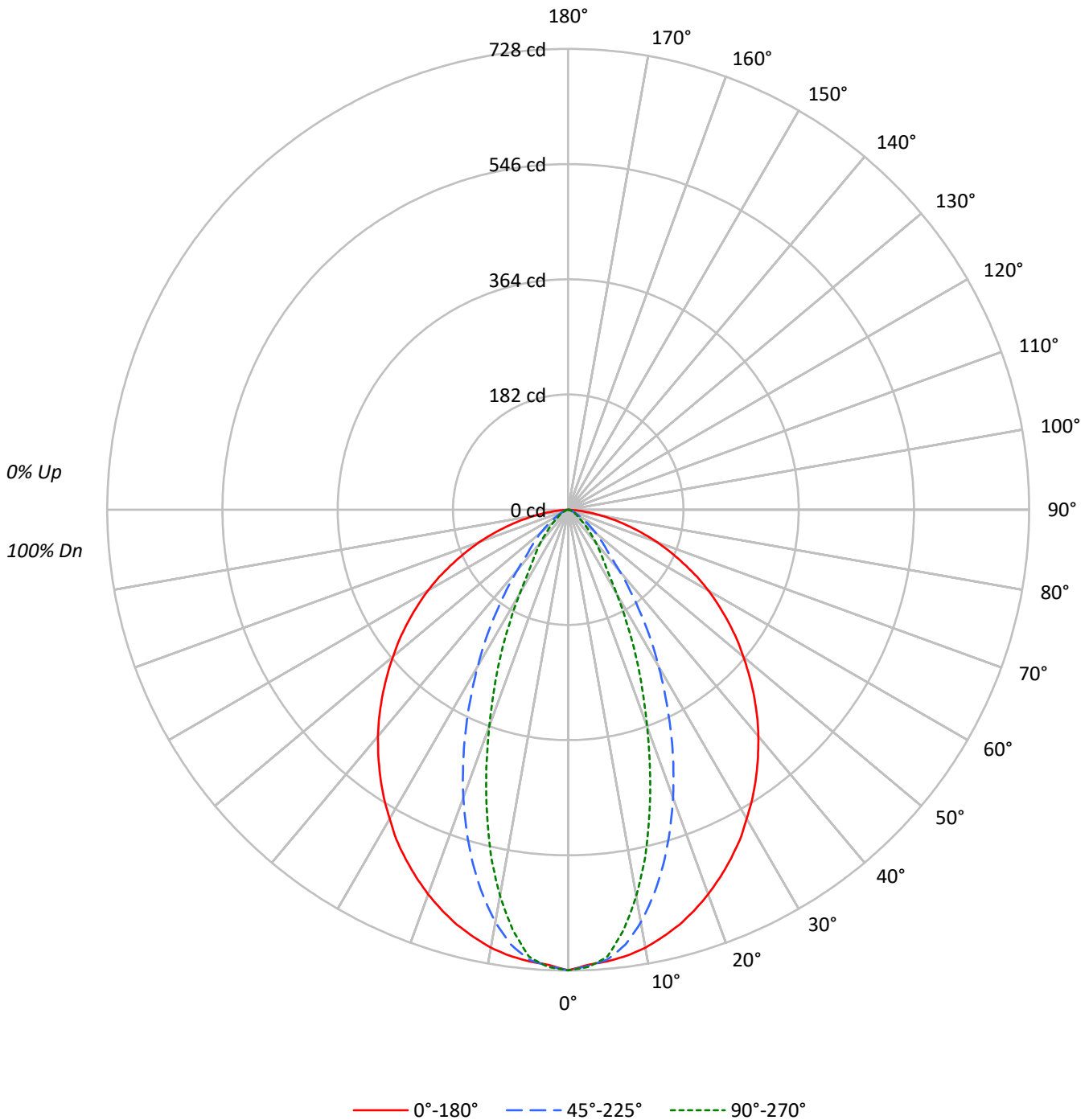
Lumens per Lamp: N/A
Luminaire Lumens: 833.9 lumens
Efficiency: N/A
Efficacy: 31.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (Ain): 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°	13785	13785	13785
5°	13617	13568	13482
10°	13519	12728	11922
15°	13310	11386	9725
20°	13035	9762	7335
25°	12712	7996	5239
30°	12330	6241	3336
35°	11962	4579	2227
40°	11557	3087	1677
45°	11109	2173	1195
50°	10643	1656	840
55°	10190	1149	618
60°	9696	777	508
65°	8993	560	399
70°	8198	443	343
75°	7115	395	264
80°	5641	295	295
85°	3109	391	196

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11109 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.5	8.0
10°-20°	163.3	19.6
20°-30°	186.5	22.4
30°-40°	158.2	19.0
40°-50°	118.0	14.2
50°-60°	76.3	9.1
60°-70°	42.5	5.1
70°-80°	18.7	2.2
80°-90°	3.9	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°	416.3	49.9
0°-40°	574.5	68.9
0°-60°	768.8	92.2
0°-90°	833.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	833.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	728	728	728	728	728	
5°	716	725	713	706	709	68
15°	679	662	580	519	496	191
25°	608	537	382	280	251	280
35°	517	390	198	108	96	323
45°	415	246	81	53	45	320
55°	308	117	35	21	19	276
65°	201	43	12	10	9	199
75°	97	9	5	4	4	104
85°	14	1	2	1	1	20
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	727.6	727.6	727.6	727.6	727.6
2.5°	719.6	730.3	721.4	721.4	723.2
5°	716.0	725.0	713.4	706.2	708.9
7.5°	710.7	716.9	692.9	671.5	669.7
10°	702.7	705.3	661.6	628.7	619.7
12.5°	691.1	684.8	623.3	576.9	561.8
15°	678.6	661.6	580.5	519.0	495.8
17.5°	663.4	633.1	533.2	458.3	429.8
20°	646.5	603.7	484.2	395.0	363.8
22.5°	627.8	570.7	433.4	335.3	304.1
25°	608.1	536.8	382.5	280.0	250.6
27.5°	587.6	501.1	332.6	230.1	198.0
30°	563.6	464.6	285.3	181.9	152.5
32.5°	541.3	426.2	241.7	140.9	115.9
35°	517.2	389.7	198.0	107.9	96.3
37.5°	492.2	353.1	159.6	91.0	81.1
40°	467.3	316.6	124.8	76.7	67.8
42.5°	441.4	280.9	96.3	64.2	55.3
45°	414.6	246.1	81.1	52.6	44.6
47.5°	387.9	211.3	67.8	41.9	35.7
50°	361.1	178.3	56.2	33.0	28.5
52.5°	335.3	147.1	44.6	26.8	23.2
55°	308.5	116.8	34.8	21.4	18.7
57.5°	281.8	91.0	26.8	17.8	16.1
60°	255.9	68.7	20.5	14.3	13.4
62.5°	229.2	55.3	16.1	11.6	10.7
65°	200.6	42.8	12.5	9.8	8.9
67.5°	174.8	31.2	9.8	8.0	7.1
70°	148.0	21.4	8.0	7.1	6.2
72.5°	122.2	13.4	6.2	5.4	5.4
75°	97.2	8.9	5.4	4.5	3.6
77.5°	74.0	5.4	3.6	3.6	2.7
80°	51.7	3.6	2.7	2.7	2.7
82.5°	32.1	2.7	1.8	1.8	1.8
85°	14.3	0.9	1.8	0.9	0.9
87.5°	2.7	0.9	0.9	0.9	0.9
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	17.37	18.69	17.73	19.00	19.32	3.67	4.99	4.04	5.30	5.62
	3H	19.84	21.01	20.22	21.34	21.70	4.51	5.69	4.89	6.02	6.38
	4H	20.79	21.89	21.20	22.24	22.62	4.80	5.89	5.20	6.24	6.62
	6H	21.48	22.48	21.90	22.85	23.25	4.99	6.00	5.41	6.37	6.76
	8H	21.68	22.63	22.11	23.02	23.42	5.07	6.02	5.50	6.41	6.82
	12H	21.76	22.67	22.19	23.05	23.48	5.10	6.00	5.53	6.39	6.82
4H	2H	17.15	18.25	17.56	18.60	18.98	4.25	5.34	4.65	5.69	6.07
	3H	19.64	20.53	20.05	20.94	21.34	5.27	6.17	5.68	6.57	6.97
	4H	20.58	21.38	21.01	21.80	22.24	5.65	6.45	6.08	6.87	7.31
	6H	21.34	22.03	21.80	22.47	22.94	5.95	6.64	6.41	7.08	7.55
	8H	21.58	22.22	22.05	22.67	23.14	6.05	6.69	6.52	7.14	7.61
	12H	21.71	22.28	22.19	22.76	23.23	6.10	6.66	6.58	7.15	7.62
8H	4H	20.45	21.09	20.92	21.54	22.01	6.02	6.67	6.49	7.11	7.59
	6H	21.19	21.71	21.69	22.21	22.69	6.39	6.92	6.89	7.41	7.89
	8H	21.43	21.90	21.95	22.42	22.91	6.53	7.00	7.06	7.52	8.01
	12H	21.58	22.00	22.10	22.49	23.06	6.62	7.03	7.13	7.53	8.10
12H	4H	20.40	20.97	20.89	21.45	21.93	6.15	6.71	6.63	7.20	7.67
	6H	21.13	21.60	21.65	22.11	22.60	6.51	6.98	7.03	7.50	7.99
	8H	21.39	21.80	21.91	22.30	22.87	6.69	7.11	7.21	7.60	8.17