

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: P1055243

Luminaire Tested: S122R3DR-S675D935-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055243  
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-S675D935-X4F0-XX-UDD-F-S  
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

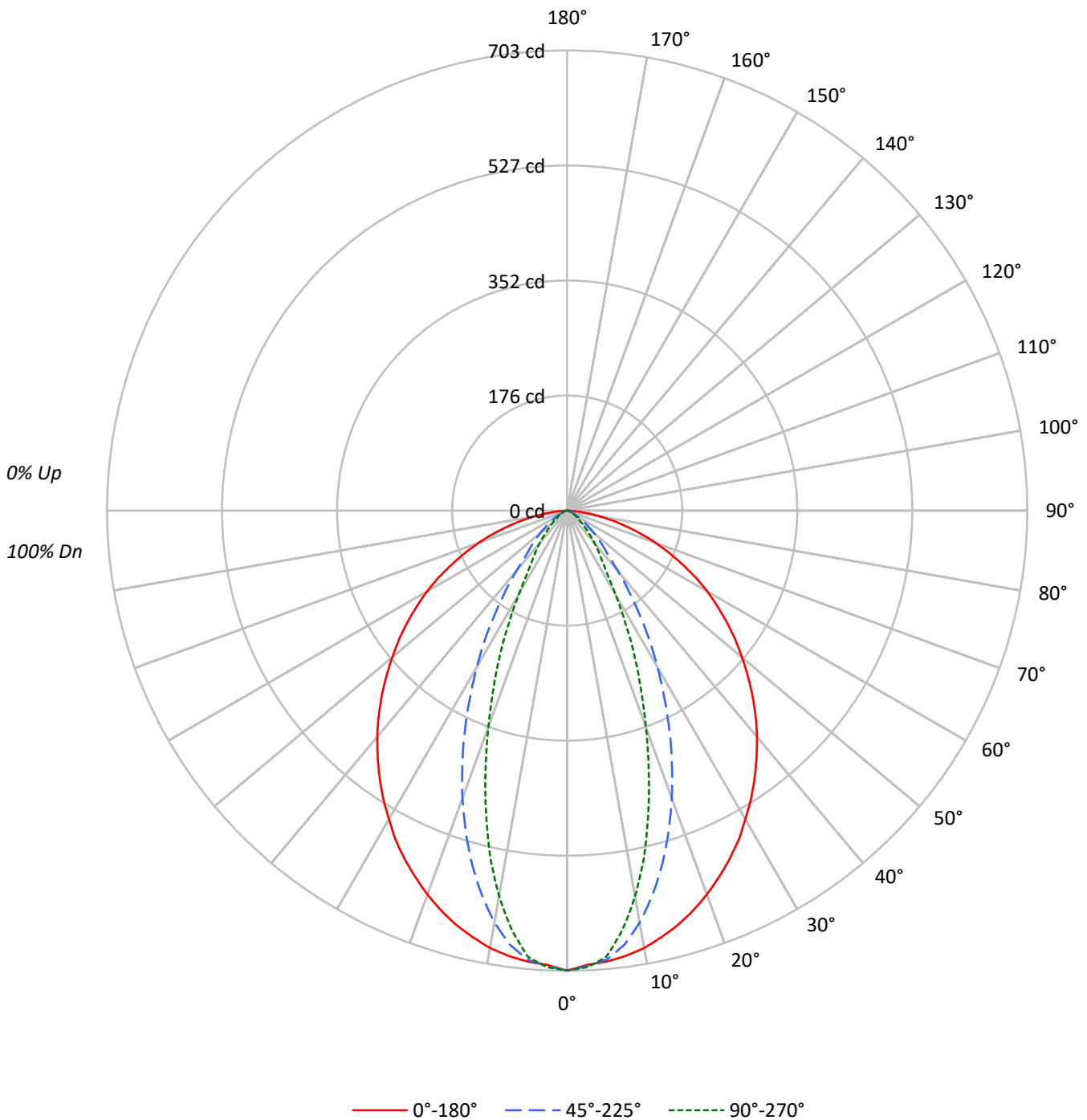
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 805.2 lumens  
Efficiency: N/A  
Efficacy: 30.5 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

TEST NUMBER: P105243

CATALOG NUMBER: S122R3DR-S675D935-X4F0-XX-UDD-F-S

### Luminous Intensity Polar Plot





TEST NUMBER: P1055243

CATALOG NUMBER: S122R3DR-S675D935-X4F0-XX-UDD-F-S

**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°	13311	13311	13311
5°	13149	13100	13018
10°	13053	12291	11512
15°	12851	10994	9389
20°	12585	9426	7083
25°	12275	7722	5057
30°	11905	6027	3220
35°	11550	4420	2151
40°	11159	2980	1617
45°	10728	2101	1152
50°	10278	1598	813
55°	9840	1110	598
60°	9363	750	489
65°	8684	542	386
70°	7916	427	332
75°	6866	381	249
80°	5444	284	284
85°	3000	370	196

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10728 cd/sqm



TEST NUMBER: P1055243

CATALOG NUMBER: S122R3DR-S675D935-X4F0-XX-UDD-F-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.2	8.0
10°-20°	157.7	19.6
20°-30°	180.1	22.4
30°-40°	152.7	19.0
40°-50°	114.0	14.2
50°-60°	73.7	9.1
60°-70°	41.1	5.1
70°-80°	18.0	2.2
80°-90°	3.7	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°	402.0	49.9
0°-40°	554.7	68.9
0°-60°	742.3	92.2
0°-90°	805.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	805.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	703	703	703	703	703	
5°	691	700	689	682	684	66
15°	655	639	560	501	479	184
25°	587	518	369	270	242	270
35°	499	376	191	104	93	312
45°	400	238	78	51	43	309
55°	298	113	34	21	18	266
65°	194	41	12	10	9	193
75°	94	9	5	4	3	100
85°	14	1	2	1	1	20
90°	0	0	0	0	0	



TEST NUMBER: P1055243

CATALOG NUMBER: S122R3DR-S675D935-X4F0-XX-UDD-F-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	702.6	702.6	702.6	702.6	702.6
2.5°	694.8	705.2	696.5	696.5	698.3
5°	691.4	700.0	688.8	681.9	684.5
7.5°	686.2	692.2	669.0	648.3	646.6
10°	678.5	681.0	638.9	607.0	598.4
12.5°	667.3	661.2	601.8	557.1	542.4
15°	655.2	638.9	560.5	501.1	478.7
17.5°	640.6	611.3	514.9	442.6	415.0
20°	624.2	582.9	467.5	381.4	351.3
22.5°	606.1	551.0	418.4	323.7	293.6
25°	587.2	518.3	369.4	270.4	241.9
27.5°	567.4	483.9	321.2	222.1	191.1
30°	544.2	448.6	275.5	175.6	147.2
32.5°	522.6	411.6	233.3	136.0	111.9
35°	499.4	376.3	191.1	104.2	93.0
37.5°	475.3	341.0	154.1	87.8	78.4
40°	451.2	305.7	120.5	74.0	65.4
42.5°	426.2	271.2	93.0	62.0	53.4
45°	400.4	237.6	78.4	50.8	43.0
47.5°	374.5	204.1	65.4	40.5	34.4
50°	348.7	172.2	54.2	31.9	27.6
52.5°	323.7	142.1	43.0	25.8	22.4
55°	297.9	112.8	33.6	20.7	18.1
57.5°	272.1	87.8	25.8	17.2	15.5
60°	247.1	66.3	19.8	13.8	12.9
62.5°	221.3	53.4	15.5	11.2	10.3
65°	193.7	41.3	12.1	9.5	8.6
67.5°	168.8	30.1	9.5	7.7	6.9
70°	142.9	20.7	7.7	6.9	6.0
72.5°	118.0	12.9	6.0	5.2	5.2
75°	93.8	8.6	5.2	4.3	3.4
77.5°	71.5	5.2	3.4	3.4	2.6
80°	49.9	3.4	2.6	2.6	2.6
82.5°	31.0	2.6	1.7	1.7	1.7
85°	13.8	0.9	1.7	0.9	0.9
87.5°	2.6	0.9	0.9	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1055243  
 CATALOG NUMBER: S122R3DR-S675D935-X4F0-XX-UDD-F-S

**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	17.24	18.56	17.61	18.88	19.19	3.55	4.87	3.91	5.18	5.50
	3H	19.71	20.89	20.09	21.22	21.58	4.40	5.57	4.78	5.90	6.26
	4H	20.67	21.76	21.07	22.11	22.50	4.67	5.76	5.07	6.11	6.50
	6H	21.36	22.36	21.77	22.73	23.13	4.86	5.87	5.28	6.24	6.63
	8H	21.55	22.50	21.98	22.89	23.30	4.94	5.89	5.37	6.28	6.68
	12H	21.64	22.54	22.07	22.93	23.36	4.96	5.87	5.40	6.26	6.69
4H	2H	17.03	18.12	17.43	18.47	18.86	4.13	5.22	4.53	5.57	5.95
	3H	19.51	20.41	19.93	20.81	21.22	5.16	6.05	5.57	6.46	6.86
	4H	20.46	21.26	20.89	21.68	22.12	5.52	6.32	5.96	6.74	7.19
	6H	21.21	21.90	21.68	22.35	22.82	5.82	6.51	6.28	6.95	7.42
	8H	21.46	22.10	21.92	22.55	23.02	5.91	6.56	6.38	7.00	7.48
	12H	21.58	22.15	22.07	22.64	23.11	5.96	6.53	6.45	7.01	7.49
8H	4H	20.32	20.97	20.79	21.42	21.89	5.89	6.54	6.36	6.99	7.46
	6H	21.06	21.59	21.57	22.08	22.57	6.26	6.78	6.76	7.28	7.76
	8H	21.31	21.78	21.83	22.29	22.79	6.39	6.86	6.91	7.38	7.87
	12H	21.46	21.87	21.97	22.37	22.94	6.48	6.89	6.99	7.39	7.96
12H	4H	20.28	20.85	20.77	21.33	21.81	6.02	6.58	6.50	7.07	7.54
	6H	21.00	21.47	21.52	21.99	22.48	6.37	6.85	6.90	7.36	7.85
	8H	21.27	21.68	21.78	22.18	22.75	6.55	6.97	7.07	7.46	8.03