

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1055303

Luminaire Tested: S122R3DR-H1005D950-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055303  
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-H1005D950-X4F0-XX-UDD-FLL-S  
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

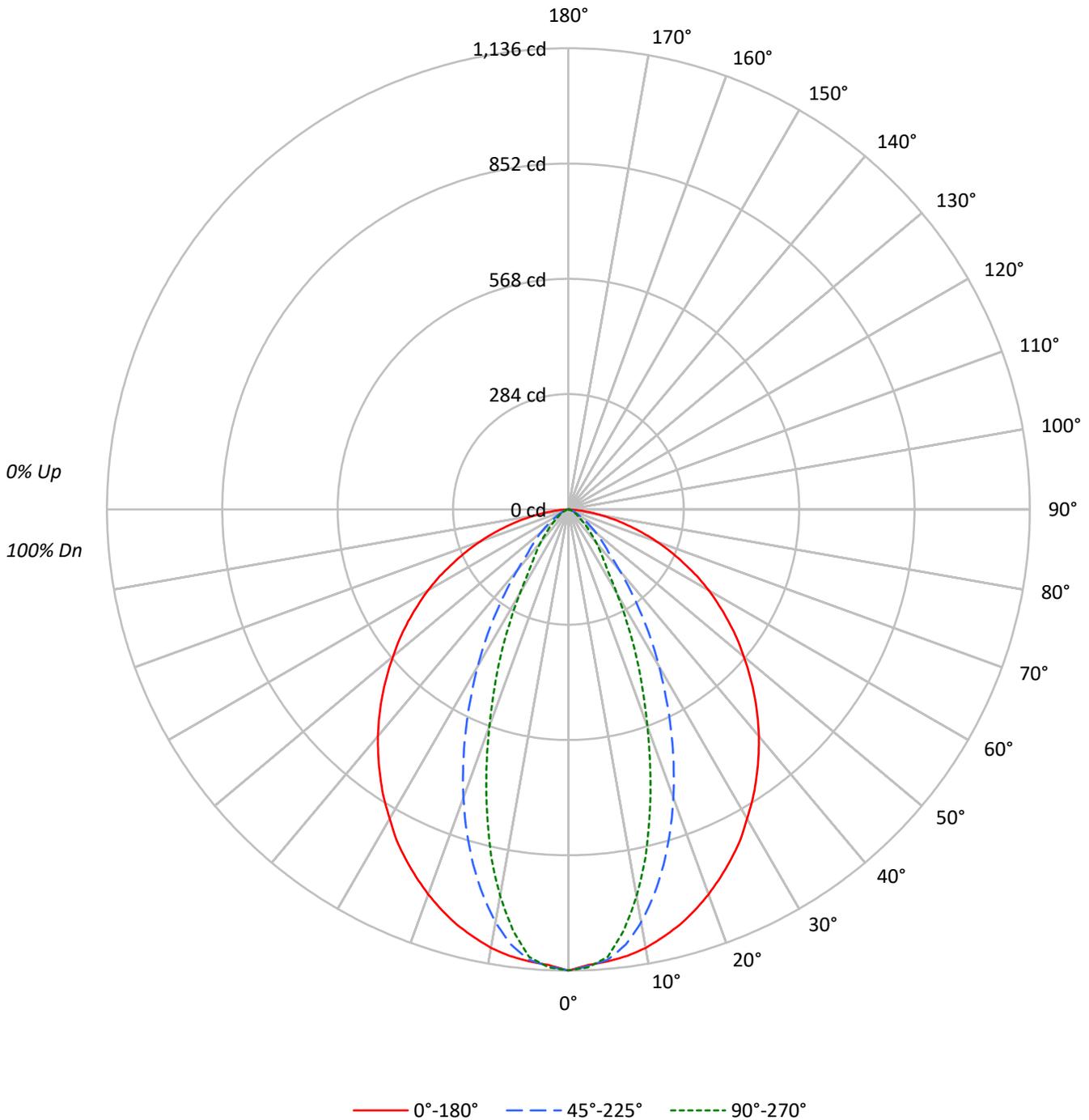
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1301.6 lumens  
Efficiency: N/A  
Efficacy: 35.6 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): 36.6  
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	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°	21517	21517	21517
5°	21255	21175	21044
10°	21098	19867	18609
15°	20773	17770	15177
20°	20343	15236	11448
25°	19842	12482	8176
30°	19243	9744	5207
35°	18669	7147	3476
40°	18037	4818	2617
45°	17341	3395	1865
50°	16615	2585	1312
55°	15908	1794	965
60°	15134	1213	792
65°	14036	874	623
70°	12796	692	537
75°	11105	615	410
80°	8805	458	458
85°	4848	609	304

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 17341 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.8	8.0
10°-20°	254.9	19.6
20°-30°	291.1	22.4
30°-40°	246.9	19.0
40°-50°	184.2	14.2
50°-60°	119.1	9.1
60°-70°	66.4	5.1
70°-80°	29.2	2.2
80°-90°	6.0	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°	649.8	49.9
0°-40°	896.7	68.9
0°-60°	1200.0	92.2
0°-90°	1301.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1301.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1136	1136	1136	1136	1136	
5°	1118	1132	1113	1102	1106	106
15°	1059	1033	906	810	774	298
25°	949	838	597	437	391	437
35°	807	608	309	168	150	505
45°	647	384	127	82	70	499
55°	482	182	54	33	29	431
65°	313	67	20	15	14	311
75°	152	14	8	7	6	162
85°	22	1	3	1	1	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1135.7	1135.7	1135.7	1135.7	1135.7
2.5°	1123.2	1139.9	1125.9	1125.9	1128.7
5°	1117.6	1131.5	1113.4	1102.3	1106.5
7.5°	1109.2	1119.0	1081.4	1048.0	1045.2
10°	1096.7	1100.9	1032.7	981.2	967.3
12.5°	1078.6	1068.9	972.8	900.5	876.8
15°	1059.1	1032.7	906.0	810.0	773.8
17.5°	1035.5	988.2	832.3	715.4	670.8
20°	1009.0	942.2	755.7	616.6	567.8
22.5°	979.8	890.7	676.4	523.3	474.6
25°	949.2	837.8	597.1	437.0	391.1
27.5°	917.2	782.2	519.1	359.1	309.0
30°	879.6	725.1	445.4	283.9	238.0
32.5°	844.8	665.3	377.2	219.9	180.9
35°	807.2	608.2	309.0	168.4	150.3
37.5°	768.3	551.1	249.1	142.0	126.7
40°	729.3	494.1	194.8	119.7	105.8
42.5°	688.9	438.4	150.3	100.2	86.3
45°	647.2	384.1	126.7	82.1	69.6
47.5°	605.4	329.9	105.8	65.4	55.7
50°	563.7	278.4	87.7	51.5	44.5
52.5°	523.3	229.6	69.6	41.8	36.2
55°	481.6	182.3	54.3	33.4	29.2
57.5°	439.8	142.0	41.8	27.8	25.1
60°	399.4	107.2	32.0	22.3	20.9
62.5°	357.7	86.3	25.1	18.1	16.7
65°	313.1	66.8	19.5	15.3	13.9
67.5°	272.8	48.7	15.3	12.5	11.1
70°	231.0	33.4	12.5	11.1	9.7
72.5°	190.7	20.9	9.7	8.4	8.4
75°	151.7	13.9	8.4	7.0	5.6
77.5°	115.5	8.4	5.6	5.6	4.2
80°	80.7	5.6	4.2	4.2	4.2
82.5°	50.1	4.2	2.8	2.8	2.8
85°	22.3	1.4	2.8	1.4	1.4
87.5°	4.2	1.4	1.4	1.4	1.4
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	18.91	20.23	19.28	20.55	20.86	5.22	6.54	5.58	6.85	7.17
	3H	21.38	22.55	21.76	22.88	23.25	6.07	7.24	6.44	7.57	7.93
	4H	22.34	23.43	22.74	23.78	24.17	6.34	7.44	6.75	7.79	8.17
	6H	23.03	24.03	23.44	24.40	24.79	6.54	7.54	6.95	7.91	8.31
	8H	23.22	24.17	23.65	24.56	24.97	6.62	7.57	7.05	7.96	8.36
	12H	23.30	24.21	23.74	24.60	25.03	6.64	7.55	7.07	7.93	8.36
4H	2H	18.70	19.79	19.10	20.14	20.53	5.79	6.89	6.20	7.24	7.62
	3H	21.18	22.08	21.60	22.48	22.88	6.82	7.72	7.23	8.12	8.52
	4H	22.13	22.93	22.56	23.35	23.79	7.19	7.99	7.63	8.41	8.86
	6H	22.88	23.57	23.34	24.02	24.48	7.49	8.18	7.95	8.63	9.09
	8H	23.12	23.77	23.59	24.22	24.69	7.59	8.24	8.06	8.68	9.15
	12H	23.25	23.82	23.74	24.31	24.78	7.64	8.21	8.12	8.69	9.16
8H	4H	21.99	22.64	22.46	23.09	23.56	7.57	8.21	8.04	8.66	9.13
	6H	22.73	23.26	23.23	23.75	24.24	7.93	8.46	8.44	8.95	9.44
	8H	22.98	23.45	23.50	23.96	24.46	8.07	8.55	8.60	9.06	9.55
	12H	23.13	23.54	23.64	24.04	24.61	8.16	8.57	8.67	9.07	9.64
12H	4H	21.95	22.52	22.44	23.00	23.47	7.69	8.26	8.18	8.74	9.22
	6H	22.67	23.14	23.19	23.66	24.15	8.05	8.52	8.58	9.04	9.53
	8H	22.94	23.35	23.45	23.85	24.42	8.24	8.65	8.75	9.14	9.72