

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: P1055296

Luminaire Tested: S122R3DR-H1005D935-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055296  
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-H1005D935-X4F0-XX-UDD-F-B  
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

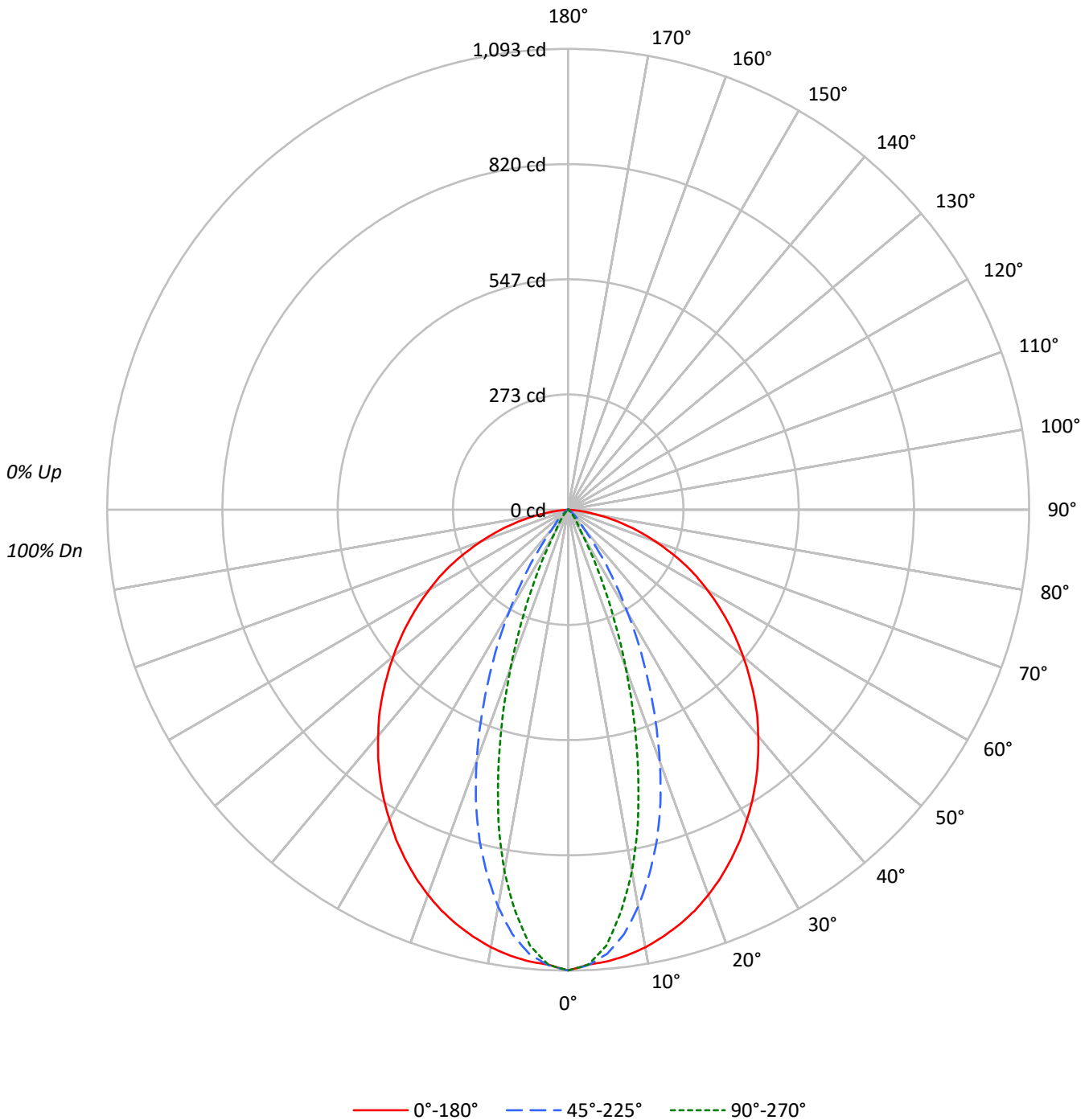
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 994.3 lumens  
Efficiency: N/A  
Efficacy: 27.2 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): 36.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	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°	20704	20704	20704
5°	20448	20114	19731
10°	20275	18390	16747
15°	19981	15915	12541
20°	19601	12789	8028
25°	19115	9374	4122
30°	18549	6128	1345
35°	17982	3400	784
40°	17335	1368	435
45°	16692	908	169
50°	15958	519	74
55°	15227	248	43
60°	14422	95	0
65°	13570	58	0
70°	12176	72	0
75°	10482	95	0
80°	7954	0	0
85°	3282	283	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 16692 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	98.0	9.9
10°-20°	227.6	22.9
20°-30°	231.1	23.2
30°-40°	173.4	17.4
40°-50°	121.4	12.2
50°-60°	74.3	7.5
60°-70°	44.3	4.5
70°-80°	20.4	2.1
80°-90°	3.7	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°	556.7	56.0
0°-40°	730.1	73.4
0°-60°	925.9	93.1
0°-90°	994.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	994.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1093	1093	1093	1093	1093	
5°	1075	1085	1058	1038	1038	102
15°	1019	963	811	687	639	287
25°	914	754	448	256	197	421
35°	778	506	147	44	34	486
45°	623	268	34	10	6	480
55°	461	82	8	2	1	412
65°	303	24	1	1	0	298
75°	143	2	1	1	0	152
85°	15	0	1	1	0	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1092.8	1092.8	1092.8	1092.8	1092.8
2.5°	1080.2	1096.6	1081.5	1079.0	1080.2
5°	1075.2	1085.3	1057.6	1037.5	1037.5
7.5°	1066.4	1066.4	1014.9	973.5	960.9
10°	1053.9	1040.1	955.9	889.3	870.5
12.5°	1037.5	1004.9	886.8	792.6	762.5
15°	1018.7	963.4	811.4	687.1	639.4
17.5°	997.3	917.0	727.3	572.8	517.5
20°	972.2	866.7	634.3	456.0	398.2
22.5°	944.6	811.4	540.1	351.7	290.2
25°	914.4	753.7	448.4	256.2	197.2
27.5°	883.0	693.4	364.3	175.9	120.6
30°	847.9	630.6	280.1	104.3	61.5
32.5°	814.0	570.3	209.8	56.5	45.2
35°	777.5	506.2	147.0	44.0	33.9
37.5°	739.8	445.9	90.4	32.7	25.1
40°	700.9	384.4	55.3	23.9	17.6
42.5°	663.2	326.6	44.0	16.3	11.3
45°	623.0	267.5	33.9	10.0	6.3
47.5°	581.6	213.5	25.1	6.3	3.8
50°	541.4	165.8	17.6	3.8	2.5
52.5°	501.2	121.8	11.3	2.5	1.3
55°	461.0	81.6	7.5	2.5	1.3
57.5°	420.8	57.8	5.0	1.3	1.3
60°	380.6	45.2	2.5	1.3	0.0
62.5°	342.9	35.2	2.5	1.3	1.3
65°	302.7	23.9	1.3	1.3	0.0
67.5°	260.0	15.1	1.3	1.3	0.0
70°	219.8	8.8	1.3	1.3	0.0
72.5°	180.9	5.0	1.3	1.3	0.0
75°	143.2	2.5	1.3	1.3	0.0
77.5°	106.8	1.3	0.0	1.3	0.0
80°	72.9	0.0	0.0	1.3	0.0
82.5°	42.7	0.0	0.0	1.3	0.0
85°	15.1	0.0	1.3	1.3	0.0
87.5°	0.0	0.0	1.3	1.3	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	16.74	18.00	17.11	18.31	18.63	0.00	0.00	0.00	0.00	0.00
	3H	20.48	21.60	20.86	21.93	22.29	0.00	0.00	0.00	0.00	0.00
	4H	21.79	22.83	22.20	23.18	23.57	0.00	0.00	0.00	0.00	0.00
	6H	22.65	23.60	23.06	23.97	24.37	0.00	0.00	0.00	0.00	0.00
	8H	22.86	23.76	23.29	24.16	24.56	0.00	0.00	0.00	0.00	0.00
	12H	22.93	23.79	23.36	24.17	24.60	0.00	0.00	0.00	0.00	0.00
4H	2H	16.49	17.53	16.90	17.89	18.27	0.00	0.00	0.00	0.00	0.00
	3H	20.24	21.09	20.65	21.49	21.90	0.00	0.00	0.00	0.00	0.00
	4H	21.53	22.29	21.97	22.71	23.16	0.00	0.00	0.00	0.00	0.00
	6H	22.45	23.11	22.91	23.55	24.02	0.00	0.00	0.00	0.00	0.00
	8H	22.71	23.32	23.18	23.77	24.24	0.00	0.00	0.00	0.00	0.00
	12H	22.81	23.35	23.30	23.83	24.31	0.00	0.00	0.00	0.00	0.00
8H	4H	21.39	22.00	21.86	22.45	22.92	0.00	0.00	0.00	0.00	0.00
	6H	22.29	22.78	22.79	23.28	23.76	0.00	0.00	0.00	0.00	0.00
	8H	22.55	22.99	23.07	23.51	24.00	0.00	0.00	0.00	0.00	0.00
	12H	22.66	23.05	23.18	23.55	24.12	0.00	0.00	0.00	0.00	0.00
12H	4H	21.34	21.88	21.82	22.36	22.83	0.00	0.00	0.00	0.00	0.00
	6H	22.22	22.67	22.75	23.19	23.68	0.00	0.00	0.00	0.00	0.00
	8H	22.50	22.89	23.02	23.39	23.96	0.00	0.00	0.00	0.00	0.00