

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: P1055293

Luminaire Tested: S122R3DR-H1005D930-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055293  
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-H1005D930-X4F0-XX-UDD-FLL-B  
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

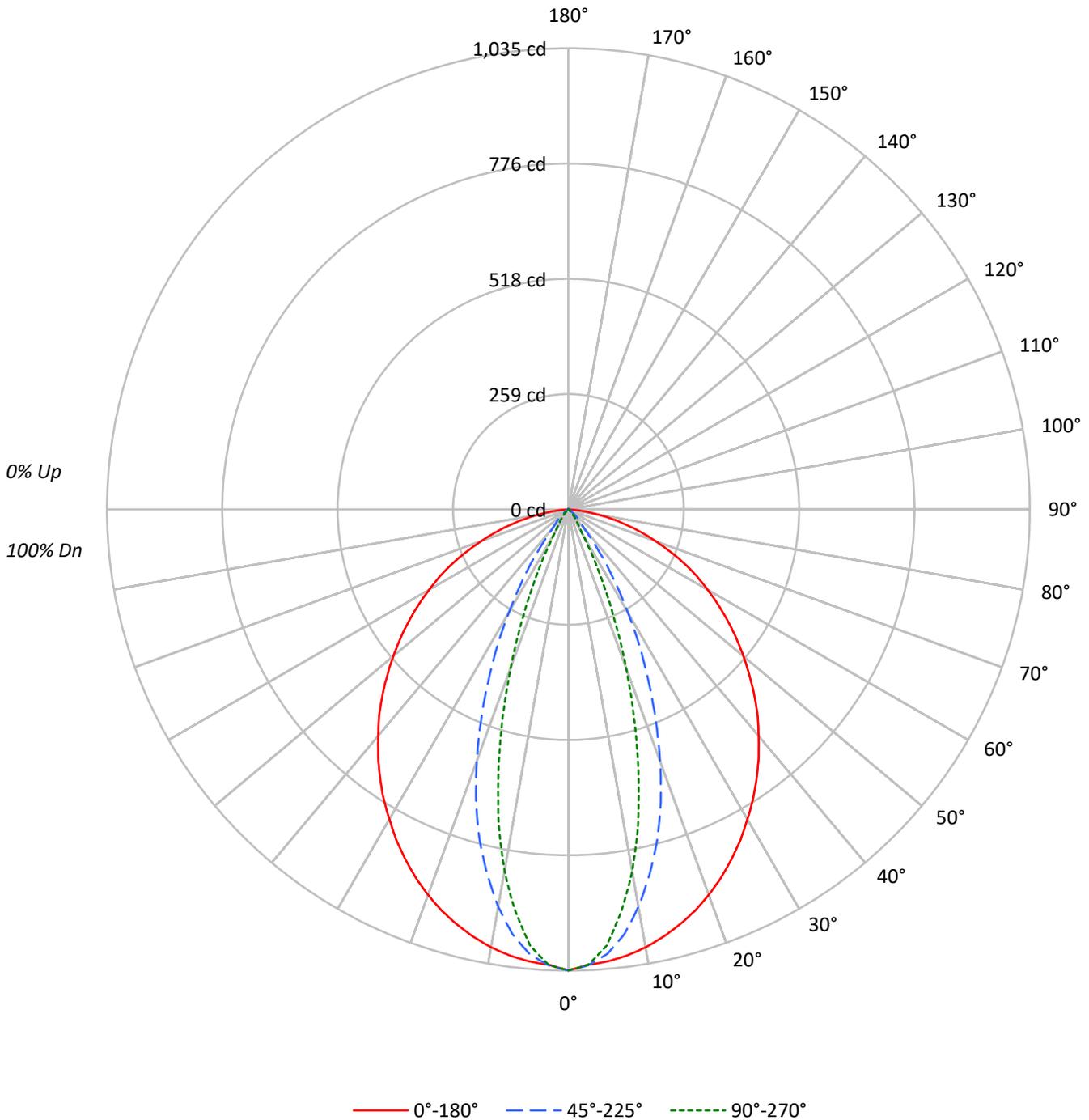
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 941.5 lumens  
Efficiency: N/A  
Efficacy: 25.7 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 (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	109	106	103	110	106	104	101	102	100	98	99	97	95	95	94	92	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	66	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	62	59	66	62	58	56
7	77	67	60	55	76	66	59	55	65	59	55	63	58	54	62	57	54	52
8	73	62	56	51	72	62	55	51	61	55	51	60	54	50	59	54	50	49
9	70	59	52	48	68	58	52	47	57	51	47	56	51	47	55	50	47	45
10	66	55	49	45	65	55	49	44	54	48	44	53	48	44	52	47	44	43

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	19605	19605	19605
5°	19364	19047	18685
10°	19198	17414	15858
15°	18920	15072	11874
20°	18561	12111	7601
25°	18101	8876	3903
30°	17565	5802	1275
35°	17030	3220	742
40°	16415	1293	413
45°	15808	860	158
50°	15109	492	71
55°	14418	235	40
60°	13656	91	0
65°	12853	54	0
70°	11533	66	0
75°	9926	88	0
80°	7528	0	0
85°	3109	261	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 15808 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.8	9.9
10°-20°	215.5	22.9
20°-30°	218.8	23.2
30°-40°	164.2	17.4
40°-50°	115.0	12.2
50°-60°	70.4	7.5
60°-70°	41.9	4.5
70°-80°	19.3	2.1
80°-90°	3.5	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°	527.2	56.0
0°-40°	691.4	73.4
0°-60°	876.7	93.1
0°-90°	941.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	941.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1035	1035	1035	1035	1035	
5°	1018	1028	1002	982	982	97
15°	965	912	768	651	605	272
25°	866	714	425	243	187	399
35°	736	479	139	42	32	460
45°	590	253	32	10	6	455
55°	436	77	7	2	1	390
65°	287	23	1	1	0	282
75°	136	2	1	1	0	144
85°	14	0	1	1	0	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1034.8	1034.8	1034.8	1034.8	1034.8
2.5°	1022.9	1038.4	1024.1	1021.7	1022.9
5°	1018.2	1027.7	1001.5	982.5	982.5
7.5°	1009.8	1009.8	961.1	921.8	909.9
10°	997.9	984.8	905.2	842.1	824.3
12.5°	982.5	951.5	839.7	750.5	722.0
15°	964.6	912.3	768.4	650.6	605.4
17.5°	944.4	868.3	688.7	542.4	490.0
20°	920.6	820.7	600.7	431.8	377.0
22.5°	894.5	768.4	511.5	333.0	274.8
25°	865.9	713.7	424.6	242.6	186.7
27.5°	836.2	656.6	344.9	166.5	114.2
30°	802.9	597.1	265.2	98.7	58.3
32.5°	770.8	540.0	198.6	53.5	42.8
35°	736.3	479.3	139.2	41.6	32.1
37.5°	700.6	422.2	85.6	30.9	23.8
40°	663.7	364.0	52.3	22.6	16.7
42.5°	628.0	309.3	41.6	15.5	10.7
45°	590.0	253.3	32.1	9.5	5.9
47.5°	550.7	202.2	23.8	5.9	3.6
50°	512.6	157.0	16.7	3.6	2.4
52.5°	474.6	115.4	10.7	2.4	1.2
55°	436.5	77.3	7.1	2.4	1.2
57.5°	398.5	54.7	4.8	1.2	1.2
60°	360.4	42.8	2.4	1.2	0.0
62.5°	324.7	33.3	2.4	1.2	1.2
65°	286.7	22.6	1.2	1.2	0.0
67.5°	246.2	14.3	1.2	1.2	0.0
70°	208.2	8.3	1.2	1.2	0.0
72.5°	171.3	4.8	1.2	1.2	0.0
75°	135.6	2.4	1.2	1.2	0.0
77.5°	101.1	1.2	0.0	1.2	0.0
80°	69.0	0.0	0.0	1.2	0.0
82.5°	40.4	0.0	0.0	1.2	0.0
85°	14.3	0.0	1.2	1.2	0.0
87.5°	0.0	0.0	1.2	1.2	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	16.55	17.81	16.92	18.12	18.44	0.00	0.00	0.00	0.00	0.00
	3H	20.29	21.41	20.67	21.74	22.11	0.00	0.00	0.00	0.00	0.00
	4H	21.60	22.64	22.01	22.99	23.38	0.00	0.00	0.00	0.00	0.00
	6H	22.46	23.41	22.87	23.78	24.18	0.00	0.00	0.00	0.00	0.00
	8H	22.67	23.57	23.10	23.97	24.37	0.00	0.00	0.00	0.00	0.00
	12H	22.74	23.60	23.17	23.98	24.41	0.00	0.00	0.00	0.00	0.00
4H	2H	16.30	17.34	16.71	17.70	18.08	0.00	0.00	0.00	0.00	0.00
	3H	20.05	20.90	20.46	21.30	21.71	0.00	0.00	0.00	0.00	0.00
	4H	21.34	22.10	21.78	22.52	22.97	0.00	0.00	0.00	0.00	0.00
	6H	22.26	22.92	22.72	23.36	23.83	0.00	0.00	0.00	0.00	0.00
	8H	22.52	23.13	22.99	23.58	24.05	0.00	0.00	0.00	0.00	0.00
	12H	22.62	23.16	23.11	23.64	24.12	0.00	0.00	0.00	0.00	0.00
8H	4H	21.20	21.81	21.67	22.26	22.73	0.00	0.00	0.00	0.00	0.00
	6H	22.10	22.59	22.60	23.09	23.57	0.00	0.00	0.00	0.00	0.00
	8H	22.36	22.80	22.88	23.32	23.81	0.00	0.00	0.00	0.00	0.00
	12H	22.47	22.86	22.99	23.36	23.93	0.00	0.00	0.00	0.00	0.00
12H	4H	21.15	21.69	21.64	22.17	22.65	0.00	0.00	0.00	0.00	0.00
	6H	22.03	22.48	22.56	23.00	23.49	0.00	0.00	0.00	0.00	0.00
	8H	22.31	22.70	22.83	23.20	23.77	0.00	0.00	0.00	0.00	0.00