

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: P1055158

Luminaire Tested: S122R3DR-S1005D930-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055158  
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-S1005D930-X4F0-XX-UDD-F-B  
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

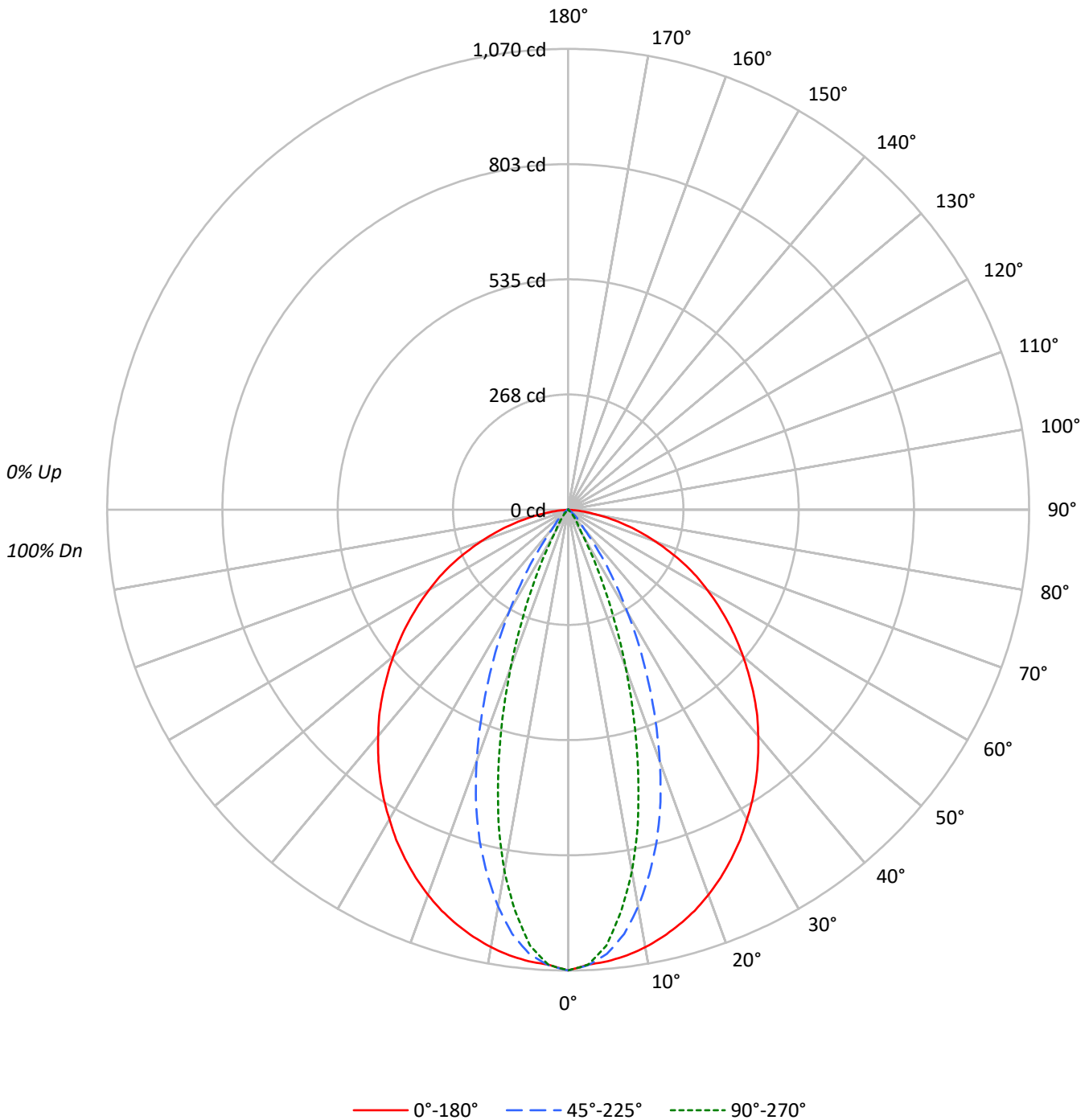
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 973.2 lumens  
Efficiency: N/A  
Efficacy: 23.2 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): 41.9  
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	48	44	43

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

	0°	45°	90°
0°	20268	20268	20268
5°	20017	19690	19317
10°	19846	18001	16393
15°	19559	15580	12277
20°	19188	12518	7859
25°	18714	9177	4035
30°	18158	5999	1319
35°	17603	3328	768
40°	16969	1338	425
45°	16341	890	163
50°	15621	507	74
55°	14907	244	40
60°	14118	95	0
65°	13283	54	0
70°	11921	66	0
75°	10263	88	0
80°	7779	0	0
85°	3217	261	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 16341 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.9	9.9
10°-20°	222.8	22.9
20°-30°	226.2	23.2
30°-40°	169.8	17.4
40°-50°	118.9	12.2
50°-60°	72.8	7.5
60°-70°	43.3	4.5
70°-80°	20.0	2.1
80°-90°	3.6	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°	545.0	56.0
0°-40°	714.7	73.4
0°-60°	906.3	93.1
0°-90°	973.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	973.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1052	1062	1035	1016	1016	100
15°	997	943	794	673	626	281
25°	895	738	439	251	193	412
35°	761	496	144	43	33	476
45°	610	262	33	10	6	470
55°	451	80	7	2	1	404
65°	296	23	1	1	0	292
75°	140	2	1	1	0	149
85°	15	0	1	1	0	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1069.8	1069.8	1069.8	1069.8	1069.8
2.5°	1057.5	1073.4	1058.7	1056.2	1057.5
5°	1052.5	1062.4	1035.3	1015.7	1015.7
7.5°	1043.9	1043.9	993.5	952.9	940.6
10°	1031.6	1018.1	935.7	870.6	852.1
12.5°	1015.7	983.7	868.1	775.9	746.4
15°	997.2	943.1	794.3	672.6	625.9
17.5°	976.3	897.6	711.9	560.7	506.6
20°	951.7	848.4	620.9	446.3	389.8
22.5°	924.7	794.3	528.7	344.3	284.0
25°	895.2	737.8	439.0	250.8	193.0
27.5°	864.4	678.7	356.6	172.1	118.0
30°	830.0	617.3	274.2	102.1	60.3
32.5°	796.8	558.2	205.3	55.3	44.3
35°	761.1	495.5	143.9	43.0	33.2
37.5°	724.2	436.5	88.5	32.0	24.6
40°	686.1	376.3	54.1	23.4	17.2
42.5°	649.2	319.7	43.0	16.0	11.1
45°	609.9	261.9	33.2	9.8	6.1
47.5°	569.3	209.0	24.6	6.1	3.7
50°	530.0	162.3	17.2	3.7	2.5
52.5°	490.6	119.3	11.1	2.5	1.2
55°	451.3	79.9	7.4	2.5	1.2
57.5°	411.9	56.6	4.9	1.2	1.2
60°	372.6	44.3	2.5	1.2	0.0
62.5°	335.7	34.4	2.5	1.2	1.2
65°	296.3	23.4	1.2	1.2	0.0
67.5°	254.5	14.8	1.2	1.2	0.0
70°	215.2	8.6	1.2	1.2	0.0
72.5°	177.1	4.9	1.2	1.2	0.0
75°	140.2	2.5	1.2	1.2	0.0
77.5°	104.5	1.2	0.0	1.2	0.0
80°	71.3	0.0	0.0	1.2	0.0
82.5°	41.8	0.0	0.0	1.2	0.0
85°	14.8	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	16.67	17.93	17.03	18.24	18.55	0.00	0.00	0.00	0.00	0.00
	3H	20.41	21.53	20.79	21.86	22.22	0.00	0.00	0.00	0.00	0.00
	4H	21.72	22.76	22.12	23.11	23.50	0.00	0.00	0.00	0.00	0.00
	6H	22.57	23.53	22.99	23.90	24.29	0.00	0.00	0.00	0.00	0.00
	8H	22.79	23.69	23.22	24.08	24.49	0.00	0.00	0.00	0.00	0.00
	12H	22.85	23.71	23.28	24.10	24.53	0.00	0.00	0.00	0.00	0.00
4H	2H	16.42	17.46	16.83	17.81	18.20	0.00	0.00	0.00	0.00	0.00
	3H	20.16	21.01	20.58	21.42	21.82	0.00	0.00	0.00	0.00	0.00
	4H	21.46	22.22	21.89	22.64	23.08	0.00	0.00	0.00	0.00	0.00
	6H	22.38	23.03	22.84	23.48	23.95	0.00	0.00	0.00	0.00	0.00
	8H	22.63	23.25	23.11	23.69	24.17	0.00	0.00	0.00	0.00	0.00
	12H	22.74	23.27	23.22	23.76	24.23	0.00	0.00	0.00	0.00	0.00
8H	4H	21.31	21.93	21.78	22.37	22.84	0.00	0.00	0.00	0.00	0.00
	6H	22.21	22.71	22.72	23.21	23.69	0.00	0.00	0.00	0.00	0.00
	8H	22.47	22.91	23.00	23.43	23.92	0.00	0.00	0.00	0.00	0.00
	12H	22.59	22.98	23.11	23.47	24.05	0.00	0.00	0.00	0.00	0.00
12H	4H	21.26	21.80	21.75	22.29	22.76	0.00	0.00	0.00	0.00	0.00
	6H	22.15	22.59	22.67	23.11	23.60	0.00	0.00	0.00	0.00	0.00
	8H	22.43	22.82	22.94	23.31	23.88	0.00	0.00	0.00	0.00	0.00