

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: P1055269

Luminaire Tested: S122R3DR-S865D935-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055269  
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-S865D935-X4F0-XX-UDD-F-B  
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

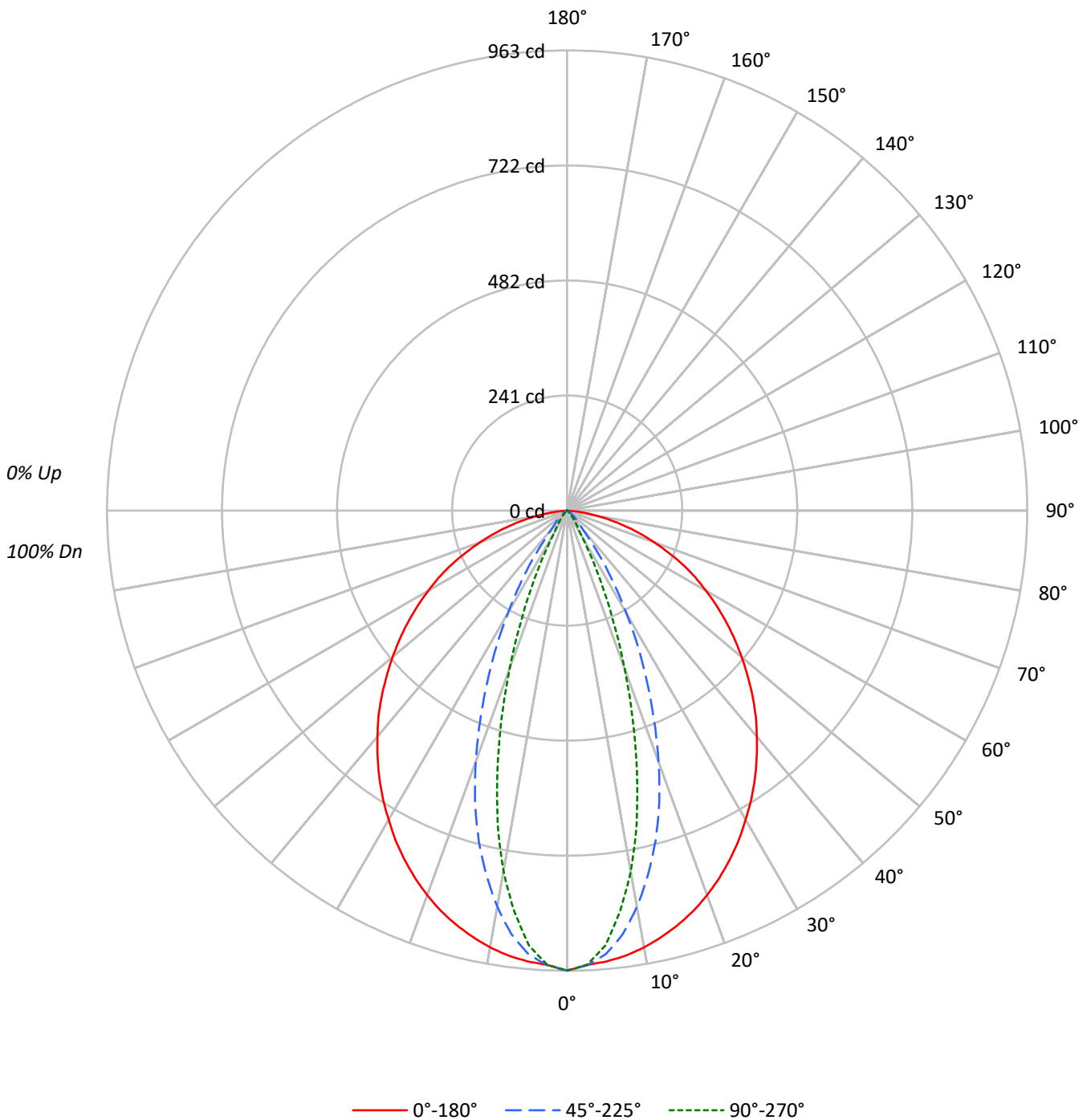
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 875.8 lumens  
Efficiency: N/A  
Efficacy: 25.2 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): 34.7  
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																		
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	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°	18237	18237	18237
5°	18012	17717	17381
10°	17859	16198	14752
15°	17600	14020	11047
20°	17267	11266	7071
25°	16839	8257	3631
30°	16340	5397	1186
35°	15841	2995	692
40°	15270	1204	383
45°	14704	801	147
50°	14056	457	65
55°	13414	218	36
60°	12705	83	0
65°	11956	49	0
70°	10724	61	0
75°	9231	81	0
80°	7005	0	0
85°	2891	239	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 14704 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.3	9.9
10°-20°	200.5	22.9
20°-30°	203.6	23.2
30°-40°	152.8	17.4
40°-50°	107.0	12.2
50°-60°	65.5	7.5
60°-70°	39.0	4.5
70°-80°	18.0	2.1
80°-90°	3.2	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°	490.4	56.0
0°-40°	643.1	73.4
0°-60°	815.6	93.1
0°-90°	875.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	875.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	963	963	963	963	963	
5°	947	956	932	914	914	90
15°	897	849	715	605	563	253
25°	806	664	395	226	174	371
35°	685	446	130	39	30	428
45°	549	236	30	9	6	423
55°	406	72	7	2	1	363
65°	267	21	1	1	0	263
75°	126	2	1	1	0	134
85°	13	0	1	1	0	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	962.6	962.6	962.6	962.6	962.6
2.5°	951.5	965.9	952.6	950.4	951.5
5°	947.1	956.0	931.6	913.9	913.9
7.5°	939.4	939.4	894.0	857.5	846.4
10°	928.3	916.1	842.0	783.4	766.8
12.5°	913.9	885.2	781.1	698.2	671.6
15°	897.3	848.6	714.8	605.2	563.2
17.5°	878.5	807.7	640.6	504.5	455.9
20°	856.4	763.4	558.8	401.6	350.7
22.5°	832.0	714.8	475.8	309.8	255.6
25°	805.5	663.9	395.0	225.7	173.7
27.5°	777.8	610.8	320.9	154.9	106.2
30°	746.9	555.4	246.7	91.8	54.2
32.5°	717.0	502.3	184.8	49.8	39.8
35°	684.9	445.9	129.5	38.7	29.9
37.5°	651.7	392.8	79.7	28.8	22.1
40°	617.4	338.6	48.7	21.0	15.5
42.5°	584.2	287.7	38.7	14.4	10.0
45°	548.8	235.7	29.9	8.9	5.5
47.5°	512.3	188.1	22.1	5.5	3.3
50°	476.9	146.1	15.5	3.3	2.2
52.5°	441.5	107.3	10.0	2.2	1.1
55°	406.1	71.9	6.6	2.2	1.1
57.5°	370.7	50.9	4.4	1.1	1.1
60°	335.3	39.8	2.2	1.1	0.0
62.5°	302.1	31.0	2.2	1.1	1.1
65°	266.7	21.0	1.1	1.1	0.0
67.5°	229.0	13.3	1.1	1.1	0.0
70°	193.6	7.7	1.1	1.1	0.0
72.5°	159.3	4.4	1.1	1.1	0.0
75°	126.1	2.2	1.1	1.1	0.0
77.5°	94.0	1.1	0.0	1.1	0.0
80°	64.2	0.0	0.0	1.1	0.0
82.5°	37.6	0.0	0.0	1.1	0.0
85°	13.3	0.0	1.1	1.1	0.0
87.5°	0.0	0.0	1.1	1.1	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	16.30	17.56	16.66	17.87	18.19	0.00	0.00	0.00	0.00	0.00
	3H	20.04	21.16	20.42	21.49	21.85	0.00	0.00	0.00	0.00	0.00
	4H	21.35	22.39	21.75	22.74	23.13	0.00	0.00	0.00	0.00	0.00
	6H	22.20	23.16	22.62	23.53	23.93	0.00	0.00	0.00	0.00	0.00
	8H	22.42	23.32	22.85	23.71	24.12	0.00	0.00	0.00	0.00	0.00
	12H	22.48	23.35	22.92	23.73	24.16	0.00	0.00	0.00	0.00	0.00
4H	2H	16.05	17.09	16.46	17.45	17.83	0.00	0.00	0.00	0.00	0.00
	3H	19.79	20.65	20.21	21.05	21.46	0.00	0.00	0.00	0.00	0.00
	4H	21.09	21.85	21.52	22.27	22.72	0.00	0.00	0.00	0.00	0.00
	6H	22.01	22.66	22.47	23.11	23.58	0.00	0.00	0.00	0.00	0.00
	8H	22.27	22.88	22.74	23.33	23.80	0.00	0.00	0.00	0.00	0.00
	12H	22.37	22.91	22.86	23.39	23.87	0.00	0.00	0.00	0.00	0.00
8H	4H	20.94	21.56	21.41	22.00	22.48	0.00	0.00	0.00	0.00	0.00
	6H	21.85	22.34	22.35	22.84	23.32	0.00	0.00	0.00	0.00	0.00
	8H	22.10	22.55	22.63	23.06	23.56	0.00	0.00	0.00	0.00	0.00
	12H	22.22	22.61	22.74	23.11	23.68	0.00	0.00	0.00	0.00	0.00
12H	4H	20.90	21.43	21.38	21.92	22.39	0.00	0.00	0.00	0.00	0.00
	6H	21.78	22.23	22.31	22.74	23.24	0.00	0.00	0.00	0.00	0.00
	8H	22.06	22.45	22.57	22.94	23.52	0.00	0.00	0.00	0.00	0.00