

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: P1055352

Luminaire Tested: S122R3DR-H485D935-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055352  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122R3DR-H485D935-X4F0-XX-UDD-F-W  
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

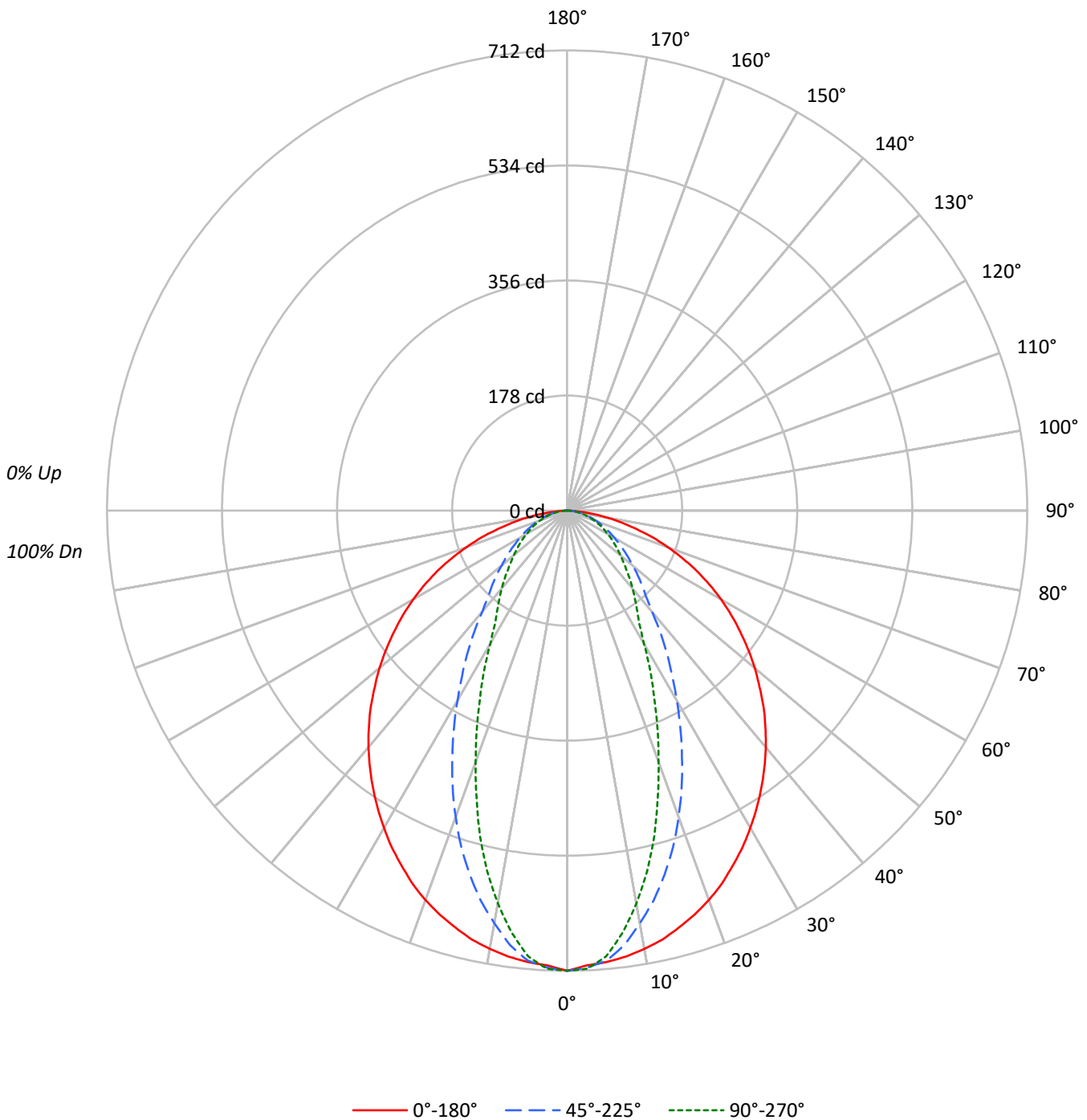
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1077.0 lumens  
Efficiency: N/A  
Efficacy: 62.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.71 / 0.9  
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.3  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	71	65	61	68	64	60	58
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54	52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	43	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35
10	59	47	39	35	58	46	39	34	45	39	34	44	38	34	43	38	34	32

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

	0°	45°	90°
0°	13489	13489	13489
5°	13337	13292	13168
10°	13251	12472	11878
15°	13102	11431	10217
20°	12928	10168	8343
25°	12670	8786	6658
30°	12400	7423	5196
35°	12117	6210	4364
40°	11824	5035	3888
45°	11516	4402	3478
50°	11177	3897	3177
55°	10795	3521	2950
60°	10420	3202	2751
65°	9930	2936	2587
70°	9201	2736	2443
75°	8147	2482	2313
80°	6950	2335	2138
85°	4782	2065	1935

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 11516 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.2	6.1
10°-20°	164.7	15.3
20°-30°	203.0	18.8
30°-40°	194.7	18.1
40°-50°	168.0	15.6
50°-60°	130.3	12.1
60°-70°	89.2	8.3
70°-80°	48.4	4.5
80°-90°	13.3	1.2
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°	433.0	40.2
0°-40°	627.7	58.3
0°-60°	926.0	86.0
0°-90°	1077.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1077.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	712	712	712	712	712	
5°	701	711	699	690	692	67
15°	668	648	583	535	521	188
25°	606	541	420	343	318	279
35°	524	416	268	200	189	328
45°	430	289	164	136	130	331
55°	327	174	107	92	89	293
65°	222	95	66	60	58	219
75°	111	44	34	32	32	119
85°	22	11	10	10	9	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	712.0	712.0	712.0	712.0	712.0
2.5°	704.3	716.2	707.9	707.9	709.6
5°	701.3	711.4	698.9	690.0	692.4
7.5°	695.9	703.1	678.1	659.0	658.4
10°	688.8	689.4	648.3	623.3	617.4
12.5°	679.9	670.4	618.0	580.5	571.5
15°	668.0	647.7	582.8	535.2	520.9
17.5°	655.5	624.5	545.3	485.8	466.1
20°	641.2	596.5	504.3	436.4	413.8
22.5°	625.1	569.7	463.2	388.8	364.9
25°	606.1	541.2	420.3	342.9	318.5
27.5°	587.6	512.0	379.2	302.4	277.4
30°	566.8	480.4	339.3	263.7	237.5
32.5°	545.9	448.3	302.4	226.8	207.2
35°	523.9	415.5	268.5	200.0	188.7
37.5°	501.3	383.4	236.3	182.2	172.1
40°	478.1	351.2	203.6	164.9	157.2
42.5°	454.2	319.7	181.0	150.6	143.5
45°	429.8	289.3	164.3	135.7	129.8
47.5°	403.6	259.0	148.2	123.2	117.9
50°	379.2	229.8	132.2	111.9	107.8
52.5°	353.0	201.2	119.1	101.8	98.2
55°	326.8	173.8	106.6	92.3	89.3
57.5°	301.2	147.6	94.7	83.3	81.0
60°	275.0	126.8	84.5	75.0	72.6
62.5°	248.3	110.1	75.0	67.3	64.9
65°	221.5	94.7	65.5	59.5	57.7
67.5°	193.5	79.8	57.2	52.4	51.2
70°	166.1	66.7	49.4	45.2	44.1
72.5°	139.3	54.2	41.7	38.7	37.5
75°	111.3	43.5	33.9	32.1	31.6
77.5°	86.9	33.9	27.4	26.2	25.6
80°	63.7	25.0	21.4	20.2	19.6
82.5°	42.3	17.3	15.5	14.9	14.3
85°	22.0	10.7	9.5	9.5	8.9
87.5°	7.1	4.8	4.8	4.8	4.2
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	18.65	20.12	19.01	20.43	20.74	13.45	14.92	13.82	15.23	15.55
	3H	20.98	22.29	21.36	22.62	22.99	15.10	16.42	15.48	16.75	17.11
	4H	21.87	23.11	22.27	23.46	23.84	15.74	16.97	16.14	17.32	17.70
	6H	22.54	23.68	22.95	24.04	24.44	16.23	17.37	16.64	17.74	18.13
	8H	22.74	23.83	23.17	24.22	24.62	16.40	17.48	16.83	17.87	18.28
	12H	22.86	23.90	23.29	24.28	24.71	16.52	17.55	16.95	17.94	18.37
4H	2H	18.66	19.90	19.06	20.25	20.63	14.17	15.40	14.57	15.75	16.13
	3H	21.08	22.10	21.49	22.50	22.90	16.02	17.04	16.43	17.44	17.84
	4H	22.01	22.93	22.44	23.35	23.79	16.76	17.69	17.20	18.10	18.54
	6H	22.78	23.59	23.24	24.03	24.49	17.38	18.18	17.84	18.62	19.08
	8H	23.06	23.80	23.52	24.25	24.72	17.59	18.34	18.06	18.79	19.26
	12H	23.23	23.90	23.72	24.38	24.85	17.76	18.42	18.24	18.90	19.37
8H	4H	22.00	22.75	22.46	23.19	23.66	17.14	17.89	17.61	18.34	18.80
	6H	22.81	23.42	23.30	23.92	24.40	17.88	18.50	18.38	18.99	19.47
	8H	23.11	23.66	23.62	24.17	24.66	18.18	18.73	18.69	19.24	19.73
	12H	23.34	23.83	23.85	24.32	24.89	18.42	18.91	18.93	19.40	19.97
12H	4H	21.98	22.65	22.46	23.13	23.60	17.20	17.87	17.68	18.35	18.82
	6H	22.78	23.34	23.30	23.85	24.34	17.96	18.52	18.48	19.03	19.52
	8H	23.12	23.61	23.63	24.10	24.67	18.32	18.81	18.83	19.30	19.87