

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: P1439629

Luminaire Tested: S122DR-H1005D927-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1439629  
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2602-702-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/2/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122DR-H1005D927-X4F0-XX-UDD-FLB-W  
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

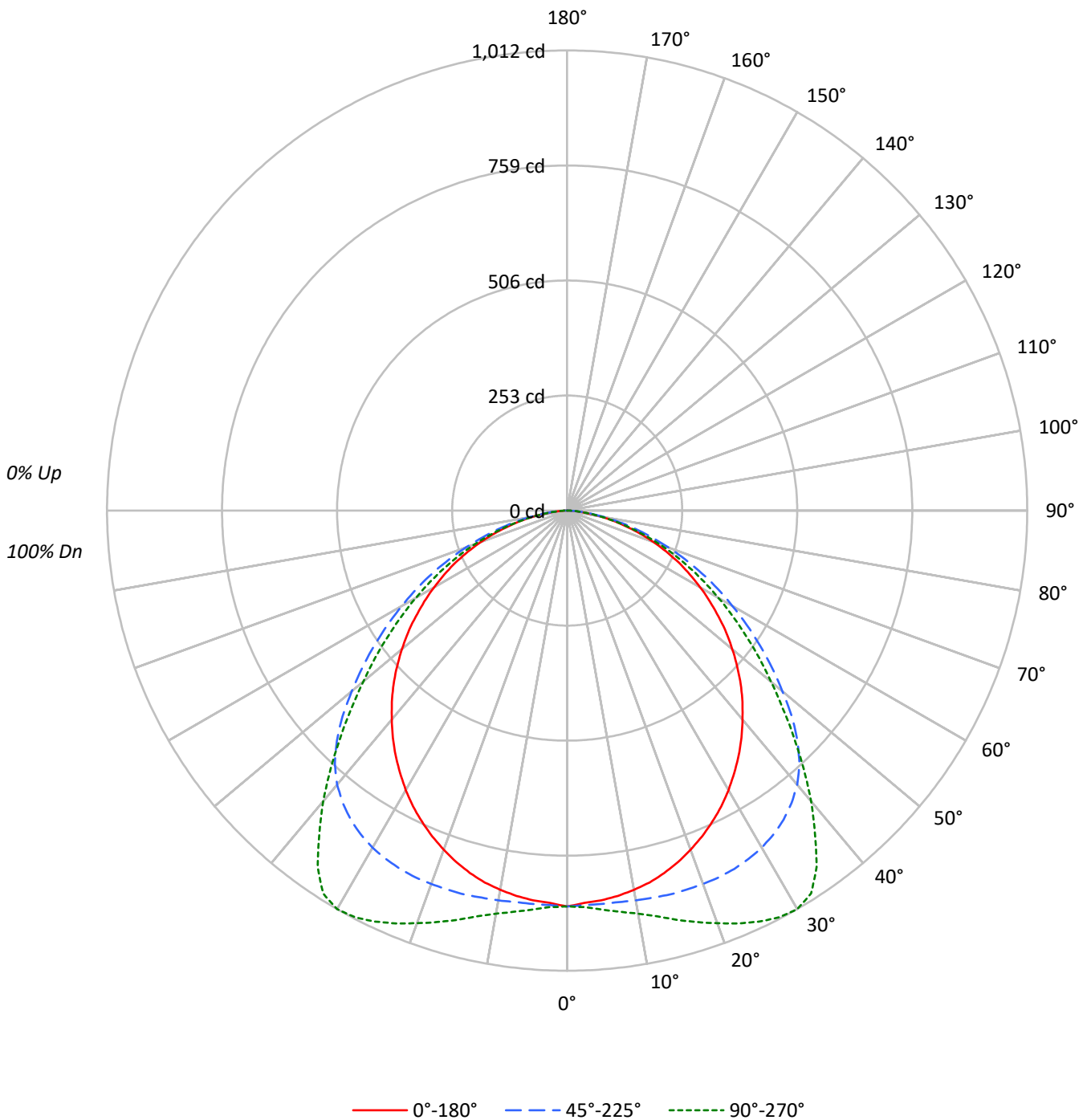
Lumens per Lamp: N/A  
Luminaire Lumens: 2677.6 lumens  
Efficiency: N/A  
Efficacy: 73.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51  
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')  
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	91	85	79	97	90	84	78	86	81	76	83	79	75	80	76	73	71
3	91	80	72	66	88	79	71	66	76	70	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	61	53	47	59	52	47	57	51	46	44
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27
10	53	40	32	27	52	39	32	27	38	31	27	38	31	26	37	31	26	25

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

	0°	45°	90°
0°	16494	16494	16494
5°	16363	16514	16751
10°	16291	16749	17314
15°	16188	17143	18275
20°	16000	17621	19470
25°	15785	18176	20850
30°	15528	18724	22141
35°	15212	19192	22125
40°	14839	19459	20636
45°	14468	19200	18897
50°	13980	18218	17251
55°	13424	17090	15855
60°	12826	15915	14585
65°	12131	14668	13296
70°	11162	13106	11915
75°	9860	11353	10277
80°	8150	9012	8150
85°	5413	5913	5652

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°  
 Vertical Angle: 45°  
 Luminance: 19353 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.3	3.1
10°-20°	248.7	9.3
20°-30°	403.5	15.1
30°-40°	510.6	19.1
40°-50°	511.3	19.1
50°-60°	428.3	16.0
60°-70°	301.8	11.3
70°-80°	155.7	5.8
80°-90°	34.5	1.3
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°	735.4	27.5
0°-40°	1246.0	46.5
0°-60°	2185.5	81.6
0°-90°	2677.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2677.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	871	871	871	871	871	
5°	860	875	868	873	881	82
15°	825	849	874	909	932	233
25°	755	796	870	954	997	348
35°	658	711	830	937	957	411
45°	540	597	717	722	705	416
55°	406	456	517	496	480	364
65°	271	301	327	307	297	267
75°	135	148	155	144	140	143
85°	25	27	27	27	26	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	870.6	870.6	870.6	870.6	870.6
2.5°	863.8	877.4	868.3	869.5	872.8
5°	860.4	875.1	868.3	872.8	880.8
7.5°	854.7	870.6	868.3	877.4	889.8
10°	846.8	864.9	870.6	886.4	900.0
12.5°	837.8	857.0	871.7	896.6	913.6
15°	825.3	849.1	874.0	909.1	931.7
17.5°	810.6	838.9	874.0	922.7	948.7
20°	793.6	826.4	874.0	934.0	965.7
22.5°	775.5	811.7	872.8	944.2	982.7
25°	755.1	795.9	869.5	954.4	997.4
27.5°	733.6	777.8	863.8	962.3	1008.7
30°	709.8	757.4	855.9	965.7	1012.1
32.5°	683.8	735.9	844.5	958.9	998.5
35°	657.7	711.0	829.8	937.4	956.6
37.5°	629.4	684.9	810.6	895.5	895.5
40°	600.0	656.6	786.8	837.8	834.4
42.5°	570.6	627.2	756.2	781.1	769.8
45°	540.0	596.6	716.6	722.3	705.3
47.5°	507.2	562.7	670.2	662.3	643.0
50°	474.3	528.7	618.1	604.5	585.3
52.5°	441.5	493.6	568.3	549.1	532.1
55°	406.4	456.2	517.4	495.9	480.0
57.5°	372.5	418.9	468.7	444.9	431.3
60°	338.5	380.4	420.0	397.4	384.9
62.5°	304.5	340.8	373.6	351.0	339.6
65°	270.6	301.1	327.2	306.8	296.6
67.5°	235.5	262.6	280.8	262.6	255.9
70°	201.5	223.0	236.6	220.8	215.1
72.5°	167.6	185.7	194.7	182.3	176.6
75°	134.7	148.3	155.1	143.8	140.4
77.5°	103.0	113.2	116.6	108.7	104.2
80°	74.7	80.4	82.6	77.0	74.7
82.5°	46.4	50.9	53.2	48.7	47.5
85°	24.9	27.2	27.2	27.2	26.0
87.5°	9.1	11.3	11.3	11.3	10.2
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	21.22	22.84	21.59	23.15	23.46	21.74	23.35	22.10	23.66	23.98
	3H	22.79	24.25	23.17	24.57	24.93	23.20	24.66	23.58	24.98	25.34
	4H	23.33	24.70	23.73	25.04	25.42	23.70	25.06	24.10	25.41	25.79
	6H	23.67	24.94	24.08	25.30	25.69	24.00	25.26	24.41	25.63	26.02
	8H	23.76	24.96	24.18	25.35	25.75	24.07	25.28	24.50	25.67	26.07
	12H	23.79	24.95	24.22	25.33	25.76	24.11	25.26	24.53	25.64	26.07
4H	2H	21.98	23.34	22.38	23.69	24.07	22.38	23.74	22.77	24.09	24.47
	3H	23.75	24.89	24.16	25.29	25.69	24.04	25.18	24.45	25.58	25.98
	4H	24.40	25.42	24.83	25.84	26.27	24.64	25.66	25.07	26.08	26.51
	6H	24.84	25.74	25.29	26.18	26.63	25.03	25.93	25.49	26.37	26.83
	8H	24.95	25.79	25.41	26.23	26.69	25.13	25.97	25.59	26.41	26.88
	12H	25.01	25.76	25.49	26.24	26.71	25.19	25.94	25.67	26.42	26.89
8H	4H	24.68	25.52	25.14	25.96	26.42	24.89	25.73	25.36	26.17	26.64
	6H	25.22	25.91	25.71	26.40	26.88	25.38	26.07	25.87	26.56	27.04
	8H	25.38	26.00	25.89	26.51	26.99	25.52	26.14	26.03	26.65	27.14
	12H	25.48	26.03	25.99	26.52	27.08	25.62	26.17	26.13	26.66	27.23
12H	4H	24.69	25.45	25.17	25.92	26.39	24.91	25.66	25.39	26.14	26.61
	6H	25.25	25.87	25.76	26.38	26.86	25.41	26.03	25.92	26.54	27.02
	8H	25.45	26.00	25.96	26.49	27.05	25.59	26.14	26.10	26.64	27.20