

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: P1439660

Luminaire Tested: S122DR-H675D950-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1439660  
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-H675D950-X4F0-XX-UDD-FLB-W  
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

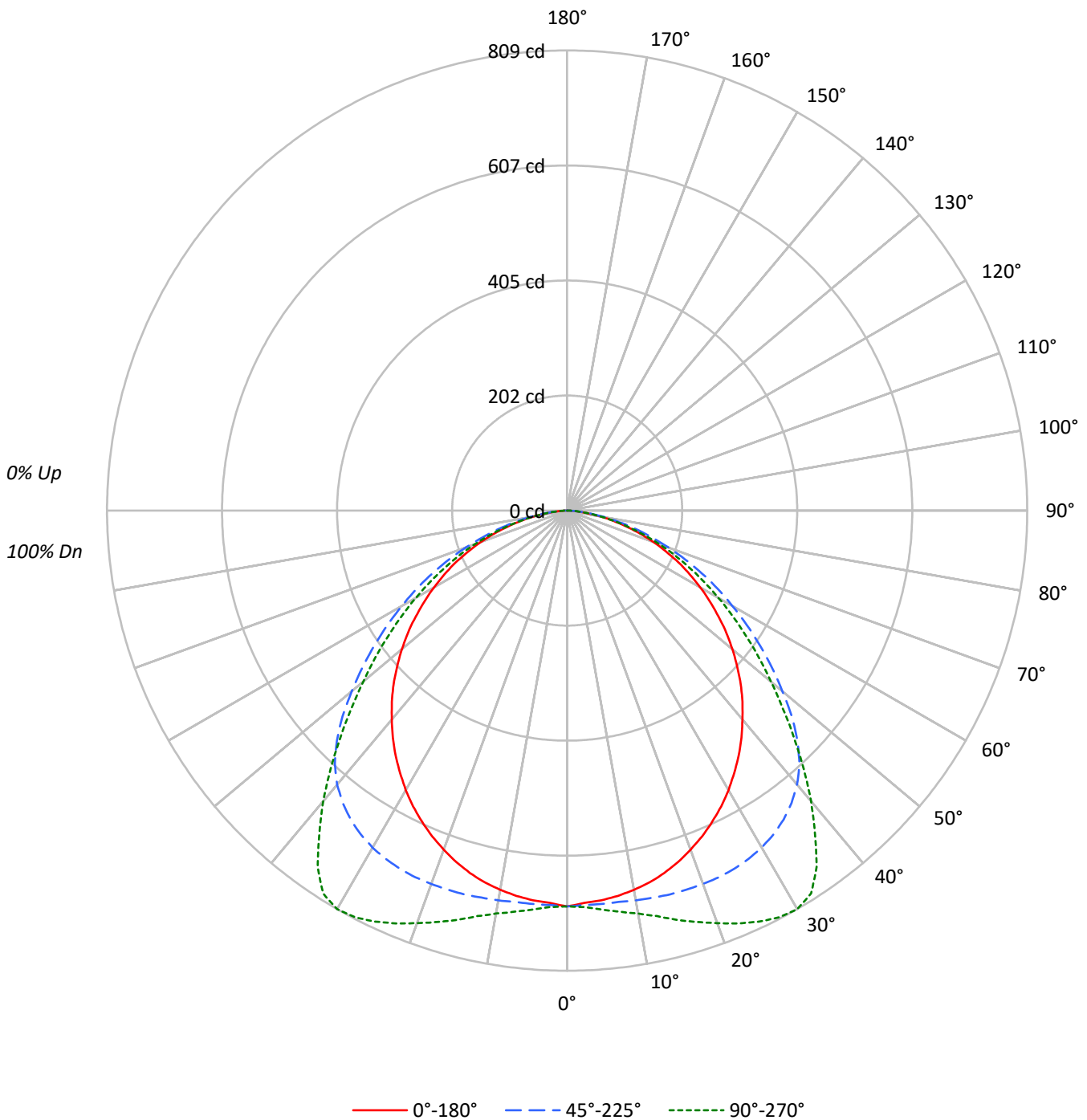
Lumens per Lamp: N/A  
Luminaire Lumens: 2140.3 lumens  
Efficiency: N/A  
Efficacy: 89.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51  
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.8  
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°	13184	13184	13184
5°	13081	13201	13391
10°	13022	13388	13840
15°	12939	13702	14609
20°	12791	14085	15563
25°	12618	14529	16667
30°	12413	14966	17698
35°	12161	15341	17686
40°	11861	15554	16496
45°	11567	15347	15106
50°	11177	14563	13791
55°	10732	13662	12674
60°	10253	12720	11659
65°	9697	11723	10629
70°	8924	10475	9522
75°	7884	9077	8213
80°	6514	7212	6514
85°	4326	4717	4521

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°  
 Vertical Angle: 45°  
 Luminance: 15471 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.6	3.1
10°-20°	198.8	9.3
20°-30°	322.5	15.1
30°-40°	408.1	19.1
40°-50°	408.7	19.1
50°-60°	342.3	16.0
60°-70°	241.2	11.3
70°-80°	124.5	5.8
80°-90°	27.6	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°	587.9	27.5
0°-40°	996.0	46.5
0°-60°	1747.0	81.6
0°-90°	2140.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2140.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	696	696	696	696	696	
5°	688	700	694	698	704	65
15°	660	679	699	727	745	186
25°	604	636	695	763	797	278
35°	526	568	663	749	765	329
45°	432	477	573	577	564	332
55°	325	365	414	396	384	291
65°	216	241	262	245	237	214
75°	108	118	124	115	112	114
85°	20	22	22	22	21	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	695.9	695.9	695.9	695.9	695.9
2.5°	690.5	701.3	694.1	695.0	697.7
5°	687.8	699.5	694.1	697.7	704.1
7.5°	683.2	695.9	694.1	701.3	711.3
10°	676.9	691.4	695.9	708.6	719.4
12.5°	669.7	685.1	696.8	716.7	730.3
15°	659.7	678.7	698.6	726.7	744.8
17.5°	648.0	670.6	698.6	737.5	758.4
20°	634.4	660.6	698.6	746.6	771.9
22.5°	619.9	648.9	697.7	754.7	785.5
25°	603.6	636.2	695.0	762.9	797.3
27.5°	586.4	621.7	690.5	769.2	806.3
30°	567.4	605.4	684.1	771.9	809.0
32.5°	546.6	588.2	675.1	766.5	798.2
35°	525.8	568.3	663.3	749.3	764.7
37.5°	503.2	547.5	648.0	715.8	715.8
40°	479.6	524.9	628.9	669.7	667.0
42.5°	456.1	501.3	604.5	624.4	615.4
45°	431.7	476.9	572.8	577.4	563.8
47.5°	405.4	449.8	535.7	529.4	514.0
50°	379.2	422.6	494.1	483.2	467.9
52.5°	352.9	394.6	454.3	438.9	425.3
55°	324.9	364.7	413.6	396.4	383.7
57.5°	297.7	334.8	374.7	355.6	344.8
60°	270.6	304.1	335.7	317.6	307.7
62.5°	243.4	272.4	298.6	280.5	271.5
65°	216.3	240.7	261.5	245.2	237.1
67.5°	188.2	210.0	224.4	210.0	204.5
70°	161.1	178.3	189.1	176.5	171.9
72.5°	133.9	148.4	155.7	145.7	141.2
75°	107.7	118.5	124.0	114.9	112.2
77.5°	82.4	90.5	93.2	86.9	83.3
80°	59.7	64.3	66.1	61.5	59.7
82.5°	37.1	40.7	42.5	38.9	38.0
85°	19.9	21.7	21.7	21.7	20.8
87.5°	7.2	9.0	9.0	9.0	8.1
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	20.44	22.06	20.81	22.37	22.69	20.96	22.57	21.32	22.88	23.20
	3H	22.02	23.47	22.39	23.80	24.16	22.43	23.88	22.80	24.21	24.57
	4H	22.55	23.92	22.95	24.27	24.64	22.92	24.29	23.32	24.63	25.01
	6H	22.90	24.16	23.31	24.53	24.92	23.22	24.48	23.63	24.85	25.24
	8H	22.98	24.18	23.40	24.57	24.97	23.29	24.50	23.72	24.89	25.29
	12H	23.02	24.17	23.44	24.55	24.98	23.33	24.48	23.76	24.86	25.29
4H	2H	21.20	22.57	21.60	22.91	23.29	21.60	22.96	22.00	23.31	23.69
	3H	22.97	24.11	23.38	24.51	24.91	23.26	24.40	23.67	24.80	25.20
	4H	23.62	24.65	24.05	25.06	25.50	23.86	24.89	24.29	25.30	25.74
	6H	24.06	24.96	24.52	25.40	25.85	24.25	25.15	24.71	25.59	26.05
	8H	24.17	25.01	24.63	25.45	25.92	24.35	25.19	24.82	25.63	26.10
	12H	24.23	24.98	24.71	25.46	25.93	24.41	25.16	24.89	25.64	26.11
8H	4H	23.90	24.74	24.36	25.18	25.65	24.12	24.95	24.58	25.40	25.86
	6H	24.44	25.13	24.93	25.62	26.10	24.60	25.29	25.09	25.78	26.26
	8H	24.60	25.22	25.11	25.73	26.22	24.74	25.37	25.25	25.87	26.36
	12H	24.70	25.25	25.21	25.74	26.31	24.84	25.39	25.35	25.89	26.45
12H	4H	23.92	24.67	24.40	25.14	25.61	24.13	24.88	24.61	25.36	25.83
	6H	24.47	25.09	24.98	25.60	26.09	24.63	25.25	25.14	25.76	26.24
	8H	24.67	25.22	25.18	25.72	26.28	24.82	25.37	25.32	25.86	26.42