

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: P1439657

Luminaire Tested: S122DR-H675D930-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1439657  
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-H675D930-X4F0-XX-UDD-FLB-W  
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

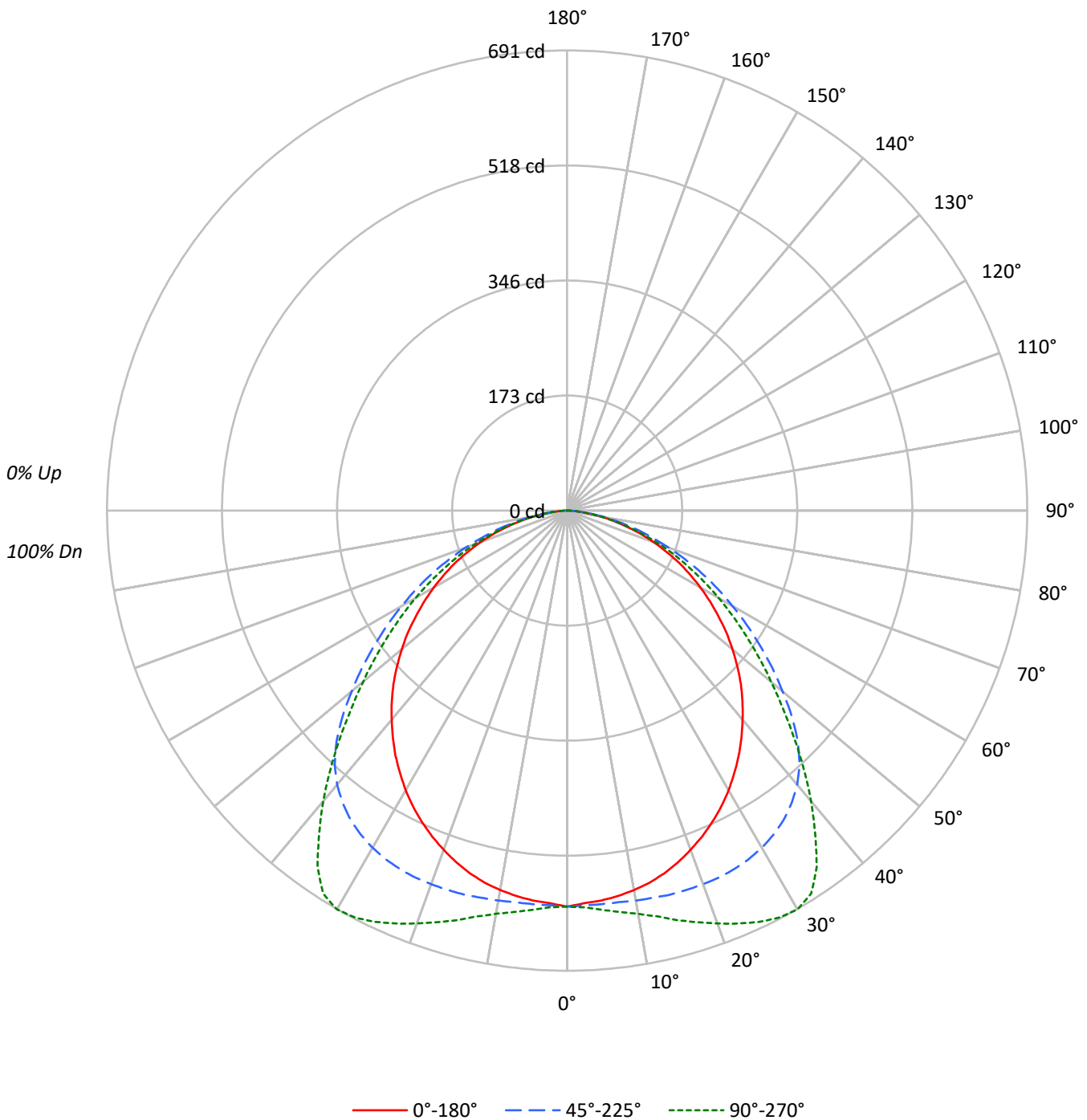
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1829.1 lumens  
Efficiency: N/A  
Efficacy: 76.9 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°	11267	11267	11267
5°	11179	11282	11443
10°	11129	11441	11828
15°	11058	11712	12484
20°	10930	12039	13301
25°	10783	12417	14244
30°	10608	12791	15126
35°	10392	13112	15115
40°	10138	13293	14097
45°	9884	13118	12909
50°	9550	12447	11784
55°	9169	11673	10831
60°	8761	10871	9966
65°	8285	10019	9082
70°	7628	8952	8137
75°	6735	7759	7020
80°	5564	6164	5564
85°	3695	4043	3869

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°  
 Vertical Angle: 45°  
 Luminance: 13220 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.9	3.1
10°-20°	169.9	9.3
20°-30°	275.6	15.1
30°-40°	348.8	19.1
40°-50°	349.3	19.1
50°-60°	292.6	16.0
60°-70°	206.2	11.3
70°-80°	106.4	5.8
80°-90°	23.6	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°	502.4	27.5
0°-40°	851.2	46.5
0°-60°	1493.0	81.6
0°-90°	1829.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1829.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	595	595	595	595	595	
5°	588	598	593	596	602	56
15°	564	580	597	621	636	159
25°	516	544	594	652	681	238
35°	449	486	567	640	654	281
45°	369	408	490	493	482	284
55°	278	312	353	339	328	248
65°	185	206	224	210	203	183
75°	92	101	106	98	96	98
85°	17	19	19	19	18	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	594.7	594.7	594.7	594.7	594.7
2.5°	590.1	599.4	593.2	594.0	596.3
5°	587.8	597.8	593.2	596.3	601.7
7.5°	583.9	594.7	593.2	599.4	607.9
10°	578.5	590.9	594.7	605.6	614.8
12.5°	572.3	585.5	595.5	612.5	624.1
15°	563.8	580.0	597.1	621.0	636.5
17.5°	553.7	573.1	597.1	630.3	648.1
20°	542.1	564.6	597.1	638.0	659.7
22.5°	529.8	554.5	596.3	645.0	671.3
25°	515.8	543.7	594.0	652.0	681.4
27.5°	501.2	531.3	590.1	657.4	689.1
30°	484.9	517.4	584.7	659.7	691.4
32.5°	467.1	502.7	576.9	655.1	682.1
35°	449.3	485.7	566.9	640.4	653.5
37.5°	430.0	467.9	553.7	611.7	611.7
40°	409.9	448.6	537.5	572.3	570.0
42.5°	389.8	428.5	516.6	533.6	525.9
45°	368.9	407.6	489.6	493.4	481.8
47.5°	346.5	384.4	457.8	452.4	439.3
50°	324.0	361.2	422.3	413.0	399.8
52.5°	301.6	337.2	388.2	375.1	363.5
55°	277.6	311.7	353.4	338.7	327.9
57.5°	254.4	286.2	320.2	303.9	294.7
60°	231.2	259.9	286.9	271.5	263.0
62.5°	208.0	232.8	255.2	239.8	232.0
65°	184.8	205.7	223.5	209.6	202.6
67.5°	160.9	179.4	191.8	179.4	174.8
70°	137.7	152.4	161.6	150.8	146.9
72.5°	114.5	126.8	133.0	124.5	120.6
75°	92.0	101.3	106.0	98.2	95.9
77.5°	70.4	77.3	79.7	74.2	71.2
80°	51.0	54.9	56.5	52.6	51.0
82.5°	31.7	34.8	36.3	33.3	32.5
85°	17.0	18.6	18.6	18.6	17.8
87.5°	6.2	7.7	7.7	7.7	7.0
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	19.90	21.51	20.26	21.83	22.14	20.41	22.02	20.78	22.34	22.65
	3H	21.47	22.92	21.85	23.25	23.61	21.88	23.33	22.26	23.66	24.02
	4H	22.01	23.37	22.41	23.72	24.10	22.37	23.74	22.77	24.09	24.46
	6H	22.35	23.62	22.76	23.98	24.37	22.67	23.94	23.08	24.30	24.69
	8H	22.43	23.64	22.86	24.03	24.43	22.75	23.95	23.17	24.34	24.74
	12H	22.47	23.63	22.90	24.01	24.44	22.78	23.94	23.21	24.32	24.75
4H	2H	20.65	22.02	21.05	22.37	22.74	21.05	22.42	21.45	22.77	23.14
	3H	22.43	23.57	22.84	23.96	24.36	22.72	23.86	23.13	24.26	24.66
	4H	23.07	24.10	23.50	24.51	24.95	23.31	24.34	23.74	24.75	25.19
	6H	23.52	24.41	23.97	24.85	25.31	23.71	24.60	24.16	25.05	25.50
	8H	23.63	24.46	24.09	24.91	25.37	23.81	24.65	24.27	25.09	25.55
	12H	23.69	24.44	24.17	24.91	25.38	23.87	24.62	24.35	25.10	25.56
8H	4H	23.35	24.19	23.82	24.63	25.10	23.57	24.41	24.03	24.85	25.32
	6H	23.89	24.59	24.39	25.08	25.55	24.05	24.75	24.55	25.24	25.71
	8H	24.05	24.68	24.56	25.18	25.67	24.20	24.82	24.71	25.33	25.81
	12H	24.16	24.71	24.66	25.20	25.76	24.30	24.85	24.81	25.34	25.90
12H	4H	23.37	24.12	23.85	24.60	25.07	23.59	24.34	24.07	24.81	25.28
	6H	23.92	24.55	24.43	25.05	25.54	24.08	24.70	24.59	25.21	25.70
	8H	24.13	24.68	24.64	25.17	25.73	24.27	24.82	24.78	25.31	25.87