

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: P1439692

Luminaire Tested: S122DR-S485D927-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1439692  
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-S485D927-X4F0-XX-UDD-FLB-W  
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

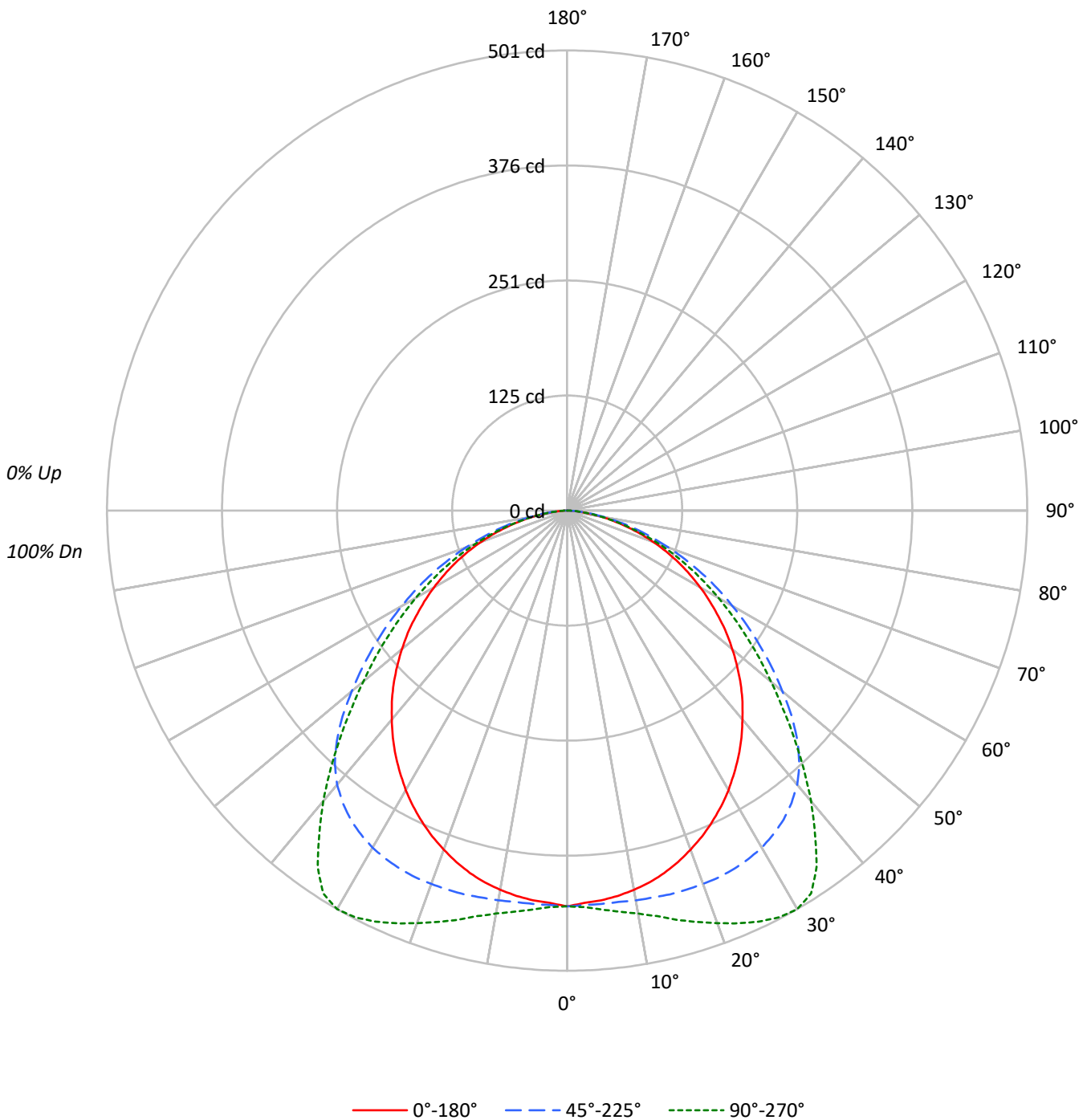
Lumens per Lamp: N/A  
Luminaire Lumens: 1325.4 lumens  
Efficiency: N/A  
Efficacy: 69.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51  
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')  
CIE Type: Direct

Input Watts (W): 19.1  
Input Voltage (V): 120  
Input Current (Ain): 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	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					100			
1	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85					85			
2	100	91	85	79	97	90	84	78	86	81	76	83	79	75	80	76	73	71					71			
3	91	80	72	66	88	79	71	66	76	70	64	73	68	63	71	66	62	60					60			
4	83	71	63	56	81	70	62	56	68	60	55	65	59	54	63	58	53	51					51			
5	76	64	55	48	74	63	54	48	61	53	47	59	52	47	57	51	46	44					44			
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39					39			
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34					34			
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30					30			
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27					27			
10	53	40	32	27	52	39	32	27	38	31	27	38	31	26	37	31	26	25					25			

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

	0°	45°	90°
0°	8164	8164	8164
5°	8100	8174	8292
10°	8065	8290	8571
15°	8012	8485	9046
20°	7920	8722	9637
25°	7814	8997	10321
30°	7688	9269	10960
35°	7531	9501	10951
40°	7345	9633	10214
45°	7162	9504	9354
50°	6921	9019	8539
55°	6646	8459	7848
60°	6351	7878	7218
65°	6003	7262	6581
70°	5523	6487	5899
75°	4883	5622	5087
80°	4037	4462	4037
85°	2674	2913	2804

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°  
 Vertical Angle: 45°  
 Luminance: 9579 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.2	3.1
10°-20°	123.1	9.3
20°-30°	199.7	15.1
30°-40°	252.7	19.1
40°-50°	253.1	19.1
50°-60°	212.0	16.0
60°-70°	149.4	11.3
70°-80°	77.1	5.8
80°-90°	17.1	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°	364.0	27.5
0°-40°	616.8	46.5
0°-60°	1081.8	81.6
0°-90°	1325.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1325.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	431	431	431	431	431	
5°	426	433	430	432	436	40
15°	408	420	433	450	461	115
25°	374	394	430	472	494	172
35°	326	352	411	464	474	203
45°	267	295	355	358	349	206
55°	201	226	256	245	238	180
65°	134	149	162	152	147	132
75°	67	73	77	71	70	71
85°	12	13	13	13	13	16
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	430.9	430.9	430.9	430.9	430.9
2.5°	427.6	434.3	429.8	430.4	432.1
5°	425.9	433.2	429.8	432.1	436.0
7.5°	423.1	430.9	429.8	434.3	440.5
10°	419.2	428.1	430.9	438.8	445.5
12.5°	414.7	424.2	431.5	443.8	452.2
15°	408.5	420.3	432.6	450.0	461.2
17.5°	401.2	415.2	432.6	456.7	469.6
20°	392.8	409.1	432.6	462.3	478.0
22.5°	383.9	401.8	432.1	467.4	486.4
25°	373.8	394.0	430.4	472.4	493.7
27.5°	363.1	385.0	427.6	476.3	499.3
30°	351.4	374.9	423.7	478.0	501.0
32.5°	338.5	364.3	418.0	474.6	494.3
35°	325.6	351.9	410.8	464.0	473.5
37.5°	311.6	339.0	401.2	443.3	443.3
40°	297.0	325.0	389.5	414.7	413.0
42.5°	282.4	310.5	374.3	386.7	381.1
45°	267.3	295.3	354.7	357.5	349.1
47.5°	251.1	278.5	331.7	327.8	318.3
50°	234.8	261.7	306.0	299.2	289.7
52.5°	218.6	244.3	281.3	271.8	263.4
55°	201.2	225.8	256.1	245.4	237.6
57.5°	184.4	207.3	232.0	220.2	213.5
60°	167.6	188.3	207.9	196.7	190.5
62.5°	150.7	168.7	184.9	173.7	168.1
65°	133.9	149.1	162.0	151.9	146.8
67.5°	116.6	130.0	139.0	130.0	126.6
70°	99.7	110.4	117.1	109.3	106.5
72.5°	82.9	91.9	96.4	90.2	87.4
75°	66.7	73.4	76.8	71.2	69.5
77.5°	51.0	56.0	57.7	53.8	51.6
80°	37.0	39.8	40.9	38.1	37.0
82.5°	23.0	25.2	26.3	24.1	23.5
85°	12.3	13.4	13.4	13.4	12.9
87.5°	4.5	5.6	5.6	5.6	5.0
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	18.78	20.39	19.14	20.71	21.02	19.29	20.91	19.66	21.22	21.53
	3H	20.35	21.80	20.73	22.13	22.49	20.76	22.21	21.14	22.54	22.90
	4H	20.89	22.25	21.29	22.60	22.98	21.25	22.62	21.65	22.97	23.34
	6H	21.23	22.49	21.64	22.86	23.25	21.55	22.82	21.97	23.18	23.58
	8H	21.31	22.52	21.74	22.91	23.31	21.63	22.83	22.05	23.22	23.62
	12H	21.35	22.51	21.78	22.89	23.32	21.66	22.82	22.09	23.20	23.63
4H	2H	19.53	20.90	19.93	21.25	21.62	19.93	21.30	20.33	21.65	22.02
	3H	21.31	22.45	21.72	22.84	23.24	21.60	22.74	22.01	23.14	23.54
	4H	21.95	22.98	22.38	23.39	23.83	22.19	23.22	22.62	23.63	24.07
	6H	22.40	23.29	22.85	23.73	24.19	22.59	23.49	23.04	23.93	24.38
	8H	22.51	23.34	22.97	23.79	24.25	22.69	23.53	23.15	23.97	24.44
	12H	22.57	23.32	23.05	23.79	24.26	22.75	23.50	23.23	23.98	24.45
8H	4H	22.23	23.07	22.70	23.52	23.98	22.45	23.29	22.91	23.73	24.20
	6H	22.77	23.47	23.27	23.96	24.43	22.93	23.63	23.43	24.12	24.59
	8H	22.93	23.56	23.44	24.06	24.55	23.08	23.70	23.59	24.21	24.70
	12H	23.04	23.59	23.54	24.08	24.64	23.18	23.73	23.69	24.22	24.78
12H	4H	22.25	23.00	22.73	23.48	23.95	22.47	23.22	22.95	23.69	24.16
	6H	22.80	23.43	23.31	23.93	24.42	22.96	23.59	23.47	24.09	24.58
	8H	23.01	23.56	23.52	24.05	24.61	23.15	23.70	23.66	24.19	24.75