

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: P1439669

Luminaire Tested: S122DR-H865D950-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1439669  
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-H865D950-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**

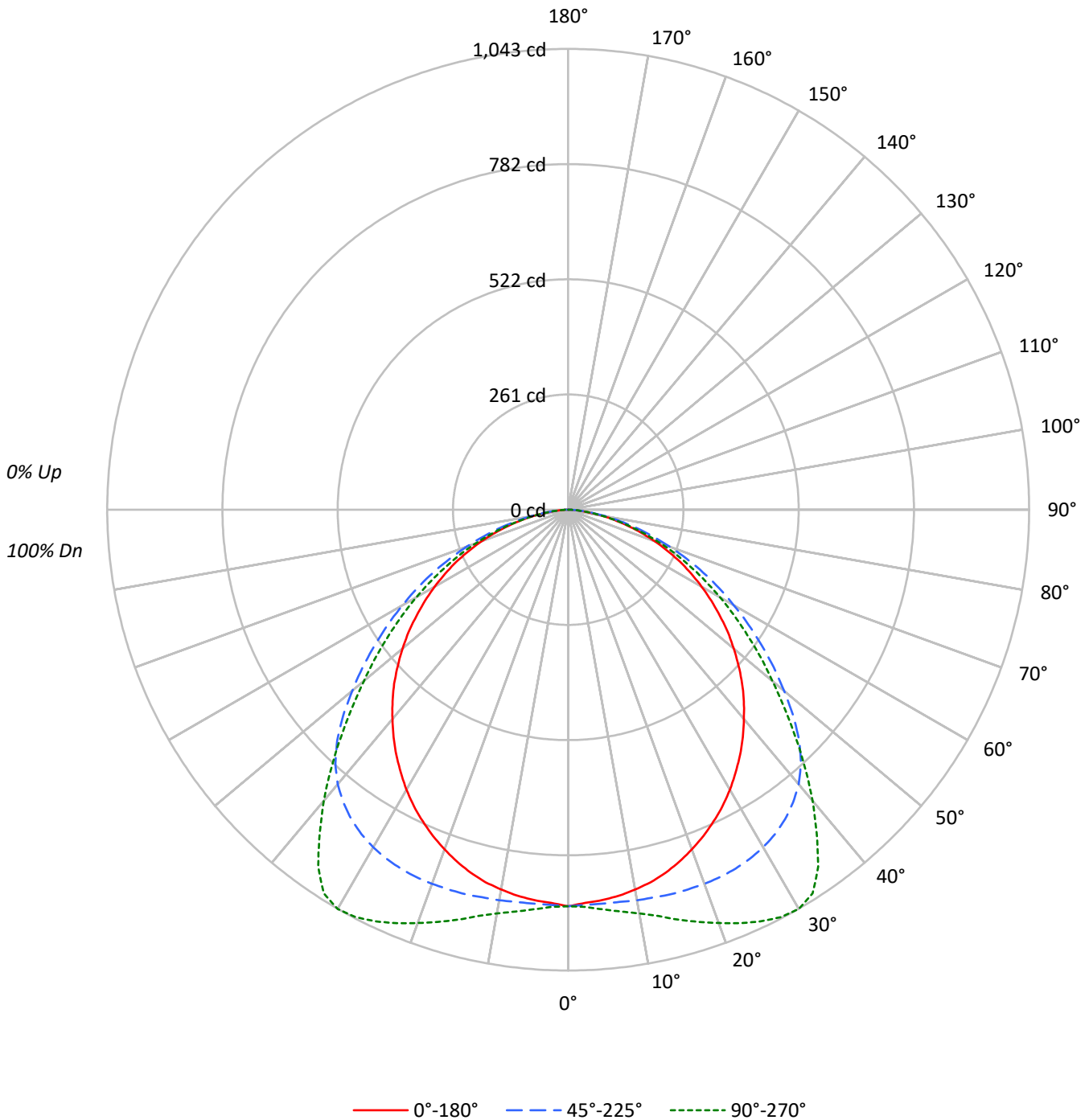
Lumens per Lamp: N/A  
Luminaire Lumens: 2760.3 lumens  
Efficiency: N/A  
Efficacy: 89.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51  
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')  
CIE Type: Direct

Input Watts (W): 30.9  
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°	17004	17004	17004
5°	16869	17023	17269
10°	16795	17266	17849
15°	16688	17672	18839
20°	16494	18166	20071
25°	16272	18737	21494
30°	16009	19302	22826
35°	15684	19787	22809
40°	15297	20060	21272
45°	14916	19795	19482
50°	14413	18781	17785
55°	13840	17615	16344
60°	13224	16407	15035
65°	12503	15121	13709
70°	11505	13511	12281
75°	10168	11705	10592
80°	8401	9296	8401
85°	5587	6087	5826

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°  
 Vertical Angle: 45°  
 Luminance: 19950 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.8	3.1
10°-20°	256.4	9.3
20°-30°	415.9	15.1
30°-40°	526.3	19.1
40°-50°	527.1	19.1
50°-60°	441.5	16.0
60°-70°	311.1	11.3
70°-80°	160.5	5.8
80°-90°	35.6	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°	758.1	27.5
0°-40°	1284.5	46.5
0°-60°	2253.0	81.6
0°-90°	2760.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2760.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	898	898	898	898	898	
5°	887	902	895	900	908	84
15°	851	875	901	937	960	240
25°	778	820	896	984	1028	359
35°	678	733	856	966	986	424
45°	557	615	739	745	727	429
55°	419	470	533	511	495	375
65°	279	310	337	316	306	276
75°	139	153	160	148	145	148
85°	26	28	28	28	27	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	897.5	897.5	897.5	897.5	897.5
2.5°	890.5	904.5	895.1	896.3	899.8
5°	887.0	902.1	895.1	899.8	908.0
7.5°	881.1	897.5	895.1	904.5	917.3
10°	873.0	891.6	897.5	913.8	927.8
12.5°	863.6	883.5	898.6	924.3	941.8
15°	850.8	875.3	901.0	937.2	960.5
17.5°	835.6	864.8	901.0	951.2	978.0
20°	818.1	852.0	901.0	962.8	995.5
22.5°	799.4	836.8	899.8	973.3	1013.0
25°	778.4	820.4	896.3	983.8	1028.2
27.5°	756.3	801.8	890.5	992.0	1039.9
30°	731.8	780.8	882.3	995.5	1043.4
32.5°	704.9	758.6	870.6	988.5	1029.4
35°	678.1	732.9	855.5	966.3	986.2
37.5°	648.9	706.1	835.6	923.2	923.2
40°	618.5	676.9	811.1	863.6	860.1
42.5°	588.2	646.6	779.6	805.3	793.6
45°	556.7	615.0	738.8	744.6	727.1
47.5°	522.8	580.0	690.9	682.7	662.9
50°	489.0	545.0	637.2	623.2	603.4
52.5°	455.2	508.8	585.9	566.0	548.5
55°	419.0	470.3	533.3	511.2	494.8
57.5°	384.0	431.8	483.2	458.7	444.7
60°	349.0	392.1	433.0	409.6	396.8
62.5°	313.9	351.3	385.1	361.8	350.1
65°	278.9	310.4	337.3	316.3	305.8
67.5°	242.8	270.8	289.4	270.8	263.8
70°	207.7	229.9	243.9	227.6	221.7
72.5°	172.7	191.4	200.7	187.9	182.1
75°	138.9	152.9	159.9	148.2	144.7
77.5°	106.2	116.7	120.2	112.0	107.4
80°	77.0	82.9	85.2	79.4	77.0
82.5°	47.8	52.5	54.9	50.2	49.0
85°	25.7	28.0	28.0	28.0	26.8
87.5°	9.3	11.7	11.7	11.7	10.5
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	21.33	22.94	21.69	23.26	23.57	21.84	23.46	22.21	23.77	24.08
	3H	22.90	24.35	23.28	24.68	25.04	23.31	24.76	23.69	25.09	25.45
	4H	23.44	24.80	23.83	25.15	25.53	23.80	25.17	24.20	25.52	25.89
	6H	23.78	25.04	24.19	25.41	25.80	24.10	25.37	24.52	25.73	26.12
	8H	23.86	25.07	24.29	25.46	25.86	24.18	25.38	24.60	25.77	26.17
	12H	23.90	25.05	24.33	25.44	25.86	24.21	25.37	24.64	25.75	26.18
4H	2H	22.08	23.45	22.48	23.80	24.17	22.48	23.85	22.88	24.20	24.57
	3H	23.85	24.99	24.26	25.39	25.79	24.15	25.29	24.56	25.69	26.09
	4H	24.50	25.53	24.93	25.94	26.38	24.74	25.77	25.17	26.18	26.62
	6H	24.95	25.84	25.40	26.28	26.74	25.14	26.03	25.59	26.48	26.93
	8H	25.05	25.89	25.52	26.33	26.80	25.24	26.08	25.70	26.52	26.98
	12H	25.12	25.87	25.60	26.34	26.81	25.30	26.05	25.78	26.53	26.99
8H	4H	24.78	25.62	25.25	26.06	26.53	25.00	25.84	25.46	26.28	26.75
	6H	25.32	26.02	25.82	26.51	26.98	25.48	26.18	25.98	26.67	27.14
	8H	25.48	26.11	25.99	26.61	27.10	25.63	26.25	26.14	26.76	27.24
	12H	25.59	26.14	26.09	26.63	27.19	25.73	26.28	26.24	26.77	27.33
12H	4H	24.80	25.55	25.28	26.03	26.50	25.02	25.77	25.50	26.24	26.71
	6H	25.35	25.98	25.86	26.48	26.97	25.51	26.13	26.02	26.64	27.13
	8H	25.56	26.11	26.06	26.60	27.16	25.70	26.25	26.21	26.74	27.30