

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: P1217292

Luminaire Tested: S122DRP-H865D830-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1217292  
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G3-2511-596-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/9/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122DRP-H865D830-X4F0-XX-UDD-G-W  
Description: DEFINE 2, DIRECT RECESSED WITH GRAZE FLUSH OPTIC  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

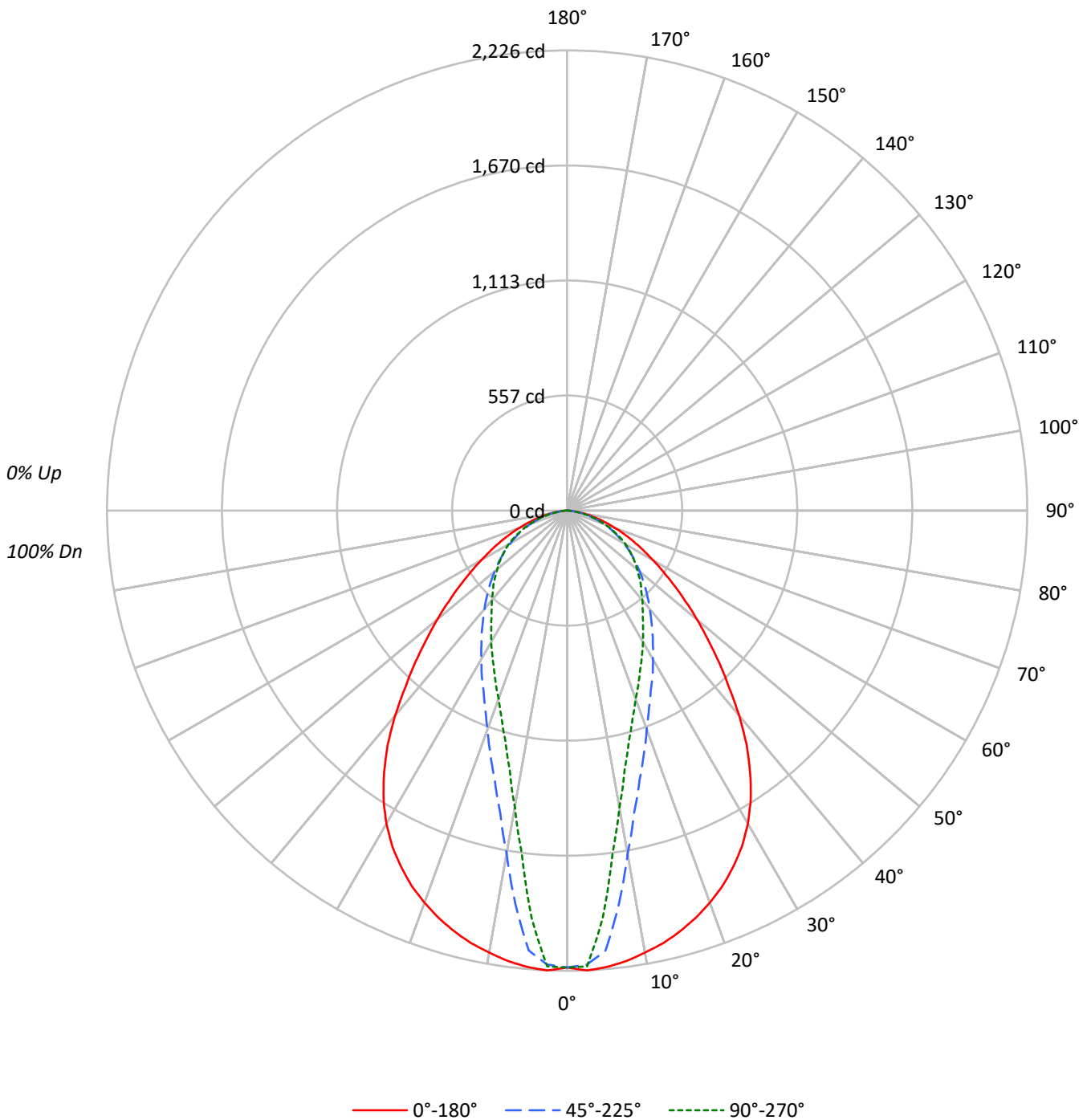
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2970.4 lumens  
Efficiency: N/A  
Efficacy: 96.1 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 0.5 / 0.8  
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 (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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65
4	86	76	68	62	84	74	67	61	72	65	60	70	64	60	68	63	59	57
5	80	69	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	50
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	44	68	57	49	44	55	48	43	54	48	43	52	47	43	41
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37
9	62	49	41	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	43	37	33	31

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

	0°	45°	90°
0°	41878	41878	41878
5°	42148	40612	37609
10°	41770	32432	28040
15°	41343	26507	22639
20°	40682	22690	19529
25°	39748	20031	17524
30°	38241	18162	16068
35°	35683	16641	14775
40°	31996	15371	14001
45°	27836	14367	13501
50°	24163	13493	13016
55°	20909	12760	12684
60°	18131	12015	12364
65°	15870	11270	11683
70°	13671	10348	10730
75°	11397	9114	9450
80°	8936	7419	7168
85°	5521	4761	4761

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 27836 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	190.3	6.4
10°-20°	419.6	14.1
20°-30°	514.9	17.3
30°-40°	532.1	17.9
40°-50°	480.5	16.2
50°-60°	389.4	13.1
60°-70°	273.0	9.2
70°-80°	140.8	4.7
80°-90°	29.7	1.0
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°	1124.8	37.9
0°-40°	1656.9	55.8
0°-60°	2526.8	85.1
0°-90°	2970.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2970.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2210	2210	2210	2210	2210	
5°	2216	2212	2135	2040	1978	210
15°	2108	1777	1351	1205	1154	594
25°	1901	1263	958	867	838	874
35°	1543	933	720	658	639	959
45°	1039	672	536	506	504	804
55°	633	460	386	382	384	570
65°	354	284	251	257	261	354
75°	156	134	124	128	129	168
85°	25	22	22	22	22	34
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2210.4	2210.4	2210.4	2210.4	2210.4
2.5°	2226.5	2218.5	2197.7	2217.3	2206.9
5°	2216.2	2211.6	2135.4	2039.7	1977.5
7.5°	2197.7	2181.6	1918.7	1737.6	1676.5
10°	2171.2	2090.5	1685.8	1517.4	1457.5
12.5°	2143.5	1953.3	1497.8	1339.8	1285.7
15°	2107.8	1776.9	1351.4	1204.9	1154.2
17.5°	2066.3	1623.5	1234.9	1094.2	1053.9
20°	2017.8	1490.9	1125.4	1002.0	968.6
22.5°	1964.8	1379.0	1034.3	934.0	902.8
25°	1901.4	1262.6	958.2	867.1	838.3
27.5°	1831.0	1173.8	894.8	809.4	785.2
30°	1748.0	1087.3	830.2	754.1	734.5
32.5°	1653.5	1006.6	772.5	705.7	682.6
35°	1542.8	932.8	719.5	658.4	638.8
37.5°	1425.2	860.2	668.8	615.7	599.6
40°	1293.7	796.8	621.5	574.2	566.1
42.5°	1158.8	733.3	578.8	538.5	531.6
45°	1038.9	672.2	536.2	506.2	503.9
47.5°	922.4	616.9	497.0	473.9	471.6
50°	819.8	559.2	457.8	442.8	441.6
52.5°	721.8	508.5	420.9	412.8	415.1
55°	633.0	460.1	386.3	381.7	384.0
57.5°	551.2	415.1	351.7	352.8	356.3
60°	478.5	369.0	317.1	321.7	326.3
62.5°	415.1	326.3	283.7	290.6	295.2
65°	354.0	283.7	251.4	257.1	260.6
67.5°	299.8	243.3	219.1	226.0	227.2
70°	246.8	206.4	186.8	193.7	193.7
72.5°	200.6	168.3	155.7	159.1	160.3
75°	155.7	133.8	124.5	128.0	129.1
77.5°	117.6	101.5	94.6	98.0	96.9
80°	81.9	71.5	68.0	66.9	65.7
82.5°	50.7	45.0	41.5	42.7	41.5
85°	25.4	21.9	21.9	21.9	21.9
87.5°	8.1	8.1	8.1	8.1	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	21.47	22.97	21.84	23.29	23.60	19.97	21.47	20.34	21.78	22.10
	3H	23.06	24.41	23.44	24.73	25.10	21.68	23.03	22.06	23.36	23.72
	4H	23.58	24.85	23.98	25.20	25.57	22.26	23.53	22.66	23.88	24.25
	6H	23.91	25.08	24.32	25.44	25.84	22.61	23.78	23.02	24.15	24.54
	8H	23.99	25.10	24.41	25.49	25.89	22.69	23.80	23.11	24.19	24.59
	12H	24.01	25.07	24.44	25.46	25.89	22.72	23.78	23.15	24.16	24.59
4H	2H	21.78	23.05	22.18	23.39	23.77	20.53	21.79	20.93	22.14	22.52
	3H	23.56	24.61	23.97	25.01	25.41	22.45	23.50	22.86	23.90	24.30
	4H	24.19	25.14	24.63	25.55	25.99	23.14	24.09	23.58	24.50	24.94
	6H	24.63	25.45	25.09	25.89	26.35	23.60	24.42	24.05	24.86	25.32
	8H	24.73	25.50	25.20	25.94	26.41	23.70	24.46	24.16	24.91	25.38
	12H	24.79	25.47	25.27	25.95	26.42	23.75	24.44	24.24	24.91	25.39
8H	4H	24.34	25.11	24.81	25.55	26.02	23.38	24.15	23.85	24.59	25.06
	6H	24.85	25.48	25.35	25.97	26.45	23.92	24.55	24.42	25.04	25.52
	8H	25.00	25.56	25.51	26.07	26.56	24.07	24.64	24.59	25.15	25.64
	12H	25.09	25.58	25.60	26.08	26.64	24.17	24.67	24.68	25.16	25.72
12H	4H	24.34	25.02	24.82	25.50	25.97	23.40	24.08	23.88	24.56	25.03
	6H	24.85	25.42	25.37	25.93	26.42	23.94	24.51	24.46	25.02	25.51
	8H	25.04	25.53	25.55	26.03	26.59	24.14	24.63	24.65	25.13	25.69