

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: P1217295

Luminaire Tested: S122DRP-H865D850-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1217295  
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-H865D850-X4F0-XX-UDD-G-W  
Description: DEFINE 2, DIRECT RECESSED WITH GRAZE FLUSH OPTIC  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

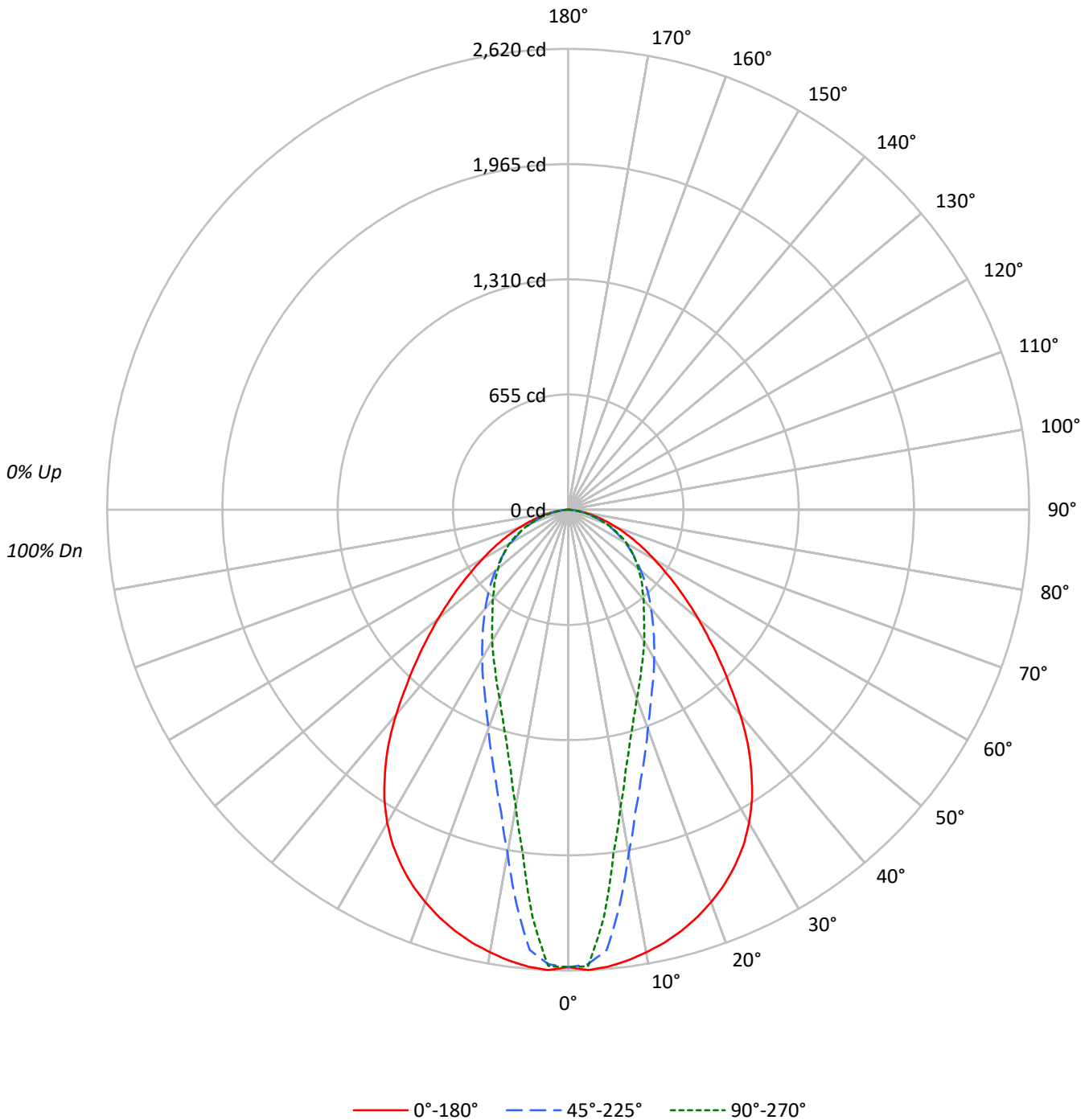
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3494.9 lumens  
Efficiency: N/A  
Efficacy: 113.1 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	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	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°	49274	49274	49274
5°	49590	47785	44250
10°	49146	38159	32990
15°	48643	31187	26636
20°	47868	26696	22976
25°	46767	23568	20618
30°	44994	21369	18906
35°	41983	19581	17383
40°	37647	18087	16474
45°	32752	16904	15886
50°	28431	15875	15315
55°	24602	15013	14923
60°	21333	14137	14547
65°	18672	13261	13745
70°	16081	12176	12624
75°	13410	10724	11119
80°	10507	8728	8434
85°	6478	5608	5608

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 32752 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	223.9	6.4
10°-20°	493.8	14.1
20°-30°	605.8	17.3
30°-40°	626.1	17.9
40°-50°	565.4	16.2
50°-60°	458.2	13.1
60°-70°	321.2	9.2
70°-80°	165.7	4.7
80°-90°	34.9	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°	1323.5	37.9
0°-40°	1949.5	55.8
0°-60°	2973.1	85.1
0°-90°	3494.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3494.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2601	2601	2601	2601	2601	
5°	2608	2602	2513	2400	2327	247
15°	2480	2091	1590	1418	1358	699
25°	2237	1486	1127	1020	986	1028
35°	1815	1098	847	775	752	1128
45°	1222	791	631	596	593	946
55°	745	541	454	449	452	671
65°	416	334	296	302	307	416
75°	183	157	146	151	152	198
85°	30	26	26	26	26	40
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2600.8	2600.8	2600.8	2600.8	2600.8
2.5°	2619.8	2610.3	2585.8	2608.9	2596.7
5°	2607.5	2602.1	2512.6	2400.0	2326.7
7.5°	2585.8	2566.8	2257.5	2044.5	1972.6
10°	2554.6	2459.7	1983.5	1785.4	1714.8
12.5°	2522.1	2298.2	1762.3	1576.5	1512.7
15°	2480.0	2090.7	1590.0	1417.7	1358.0
17.5°	2431.2	1910.2	1453.0	1287.5	1240.0
20°	2374.2	1754.2	1324.1	1179.0	1139.6
22.5°	2311.8	1622.6	1216.9	1098.9	1062.3
25°	2237.2	1485.6	1127.4	1020.2	986.3
27.5°	2154.4	1381.1	1052.8	952.4	923.9
30°	2056.7	1279.4	976.8	887.3	864.2
32.5°	1945.5	1184.4	909.0	830.3	803.2
35°	1815.2	1097.6	846.6	774.7	751.6
37.5°	1676.9	1012.1	786.9	724.5	705.5
40°	1522.2	937.5	731.3	675.6	666.1
42.5°	1363.5	862.9	681.1	633.6	625.4
45°	1222.4	790.9	630.9	595.6	592.9
47.5°	1085.3	725.8	584.7	557.6	554.9
50°	964.6	658.0	538.6	521.0	519.6
52.5°	849.3	598.3	495.2	485.7	488.4
55°	744.8	541.3	454.5	449.1	451.8
57.5°	648.5	488.4	413.8	415.1	419.2
60°	563.0	434.1	373.1	378.5	383.9
62.5°	488.4	383.9	333.7	341.9	347.3
65°	416.5	333.7	295.8	302.5	306.6
67.5°	352.7	286.3	257.8	265.9	267.3
70°	290.3	242.8	219.8	227.9	227.9
72.5°	236.1	198.1	183.2	187.2	188.6
75°	183.2	157.4	146.5	150.6	151.9
77.5°	138.4	119.4	111.2	115.3	114.0
80°	96.3	84.1	80.0	78.7	77.3
82.5°	59.7	52.9	48.8	50.2	48.8
85°	29.8	25.8	25.8	25.8	25.8
87.5°	9.5	9.5	9.5	9.5	9.5
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	22.04	23.54	22.40	23.85	24.17	20.54	22.04	20.90	22.35	22.66
	3H	23.62	24.97	24.00	25.30	25.66	22.25	23.59	22.63	23.92	24.28
	4H	24.15	25.41	24.55	25.76	26.14	22.83	24.09	23.23	24.44	24.82
	6H	24.48	25.64	24.89	26.01	26.40	23.18	24.34	23.59	24.71	25.10
	8H	24.55	25.66	24.98	26.05	26.45	23.25	24.36	23.68	24.75	25.15
	12H	24.58	25.64	25.01	26.02	26.45	23.28	24.34	23.71	24.73	25.16
4H	2H	22.35	23.61	22.75	23.96	24.34	21.10	22.36	21.50	22.71	23.09
	3H	24.13	25.18	24.54	25.58	25.98	23.01	24.06	23.42	24.46	24.86
	4H	24.76	25.70	25.19	26.12	26.56	23.71	24.65	24.14	25.07	25.51
	6H	25.19	26.01	25.65	26.46	26.92	24.16	24.98	24.62	25.42	25.88
	8H	25.30	26.06	25.76	26.51	26.98	24.26	25.03	24.73	25.47	25.94
	12H	25.35	26.03	25.83	26.51	26.98	24.32	25.00	24.80	25.48	25.95
8H	4H	24.91	25.67	25.37	26.12	26.59	23.95	24.71	24.41	25.16	25.63
	6H	25.41	26.05	25.91	26.54	27.02	24.49	25.12	24.98	25.61	26.09
	8H	25.56	26.13	26.08	26.64	27.13	24.64	25.20	25.15	25.71	26.20
	12H	25.65	26.15	26.16	26.64	27.21	24.73	25.23	25.24	25.72	26.29
12H	4H	24.91	25.59	25.39	26.07	26.54	23.96	24.64	24.44	25.12	25.59
	6H	25.42	25.98	25.93	26.49	26.98	24.51	25.07	25.02	25.58	26.07
	8H	25.60	26.10	26.11	26.59	27.16	24.70	25.20	25.21	25.69	26.26