

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: P1217268

Luminaire Tested: S122DRP-H290D850-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1217268  
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-H290D850-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: -

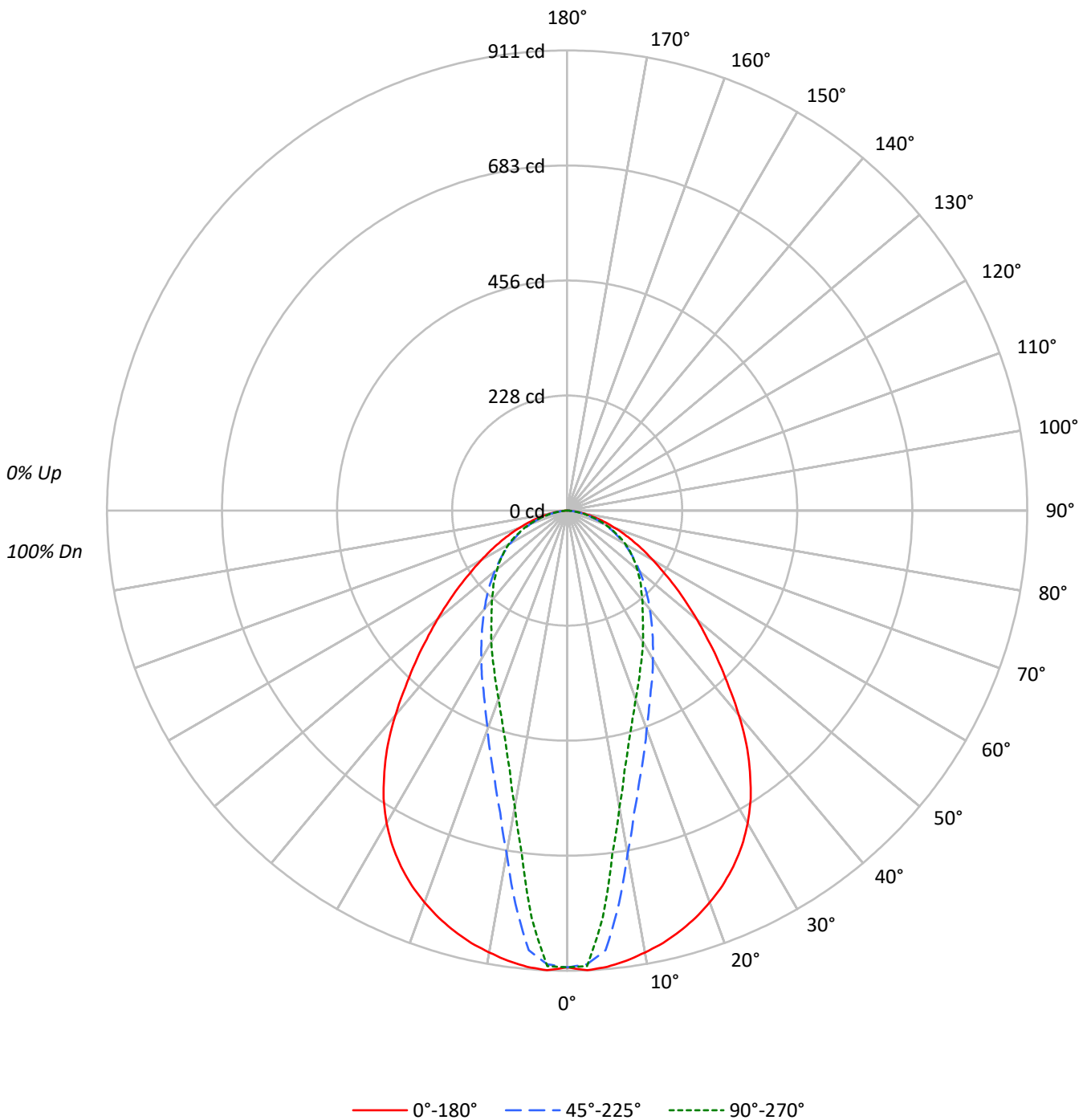
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1215.1 lumens  
Efficiency: N/A  
Efficacy: 103.9 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): 11.7  
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°	17131	17131	17131
5°	17242	16614	15384
10°	17087	13267	11470
15°	16911	10843	9262
20°	16642	9282	7988
25°	16259	8195	7168
30°	15644	7429	6574
35°	14596	6807	6044
40°	13088	6287	5728
45°	11387	5876	5522
50°	9886	5521	5326
55°	8555	5219	5189
60°	7415	4915	5059
65°	6491	4608	4779
70°	5589	4232	4387
75°	4663	3726	3865
80°	3655	3033	2935
85°	2261	1956	1956

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 11387 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.8	6.4
10°-20°	171.7	14.1
20°-30°	210.6	17.3
30°-40°	217.7	17.9
40°-50°	196.6	16.2
50°-60°	159.3	13.1
60°-70°	111.7	9.2
70°-80°	57.6	4.7
80°-90°	12.2	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°	460.1	37.9
0°-40°	677.8	55.8
0°-60°	1033.7	85.1
0°-90°	1215.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1215.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	904	904	904	904	904	
5°	907	905	874	834	809	86
15°	862	727	553	493	472	243
25°	778	516	392	355	343	357
35°	631	382	294	269	261	392
45°	425	275	219	207	206	329
55°	259	188	158	156	157	233
65°	145	116	103	105	107	145
75°	64	55	51	52	53	69
85°	10	9	9	9	9	14
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	904.2	904.2	904.2	904.2	904.2
2.5°	910.8	907.5	899.0	907.1	902.8
5°	906.6	904.7	873.6	834.4	808.9
7.5°	899.0	892.4	784.9	710.8	685.8
10°	888.2	855.2	689.6	620.7	596.2
12.5°	876.9	799.0	612.7	548.1	525.9
15°	862.2	726.9	552.8	492.9	472.2
17.5°	845.3	664.1	505.2	447.6	431.1
20°	825.4	609.9	460.4	409.9	396.2
22.5°	803.8	564.1	423.1	382.1	369.3
25°	777.8	516.5	392.0	354.7	342.9
27.5°	749.0	480.2	366.0	331.1	321.2
30°	715.1	444.8	339.6	308.5	300.5
32.5°	676.4	411.8	316.0	288.7	279.2
35°	631.1	381.6	294.3	269.3	261.3
37.5°	583.0	351.9	273.6	251.9	245.3
40°	529.2	325.9	254.2	234.9	231.6
42.5°	474.0	300.0	236.8	220.3	217.4
45°	425.0	275.0	219.3	207.1	206.1
47.5°	377.3	252.4	203.3	193.9	192.9
50°	335.4	228.8	187.3	181.1	180.7
52.5°	295.3	208.0	172.2	168.9	169.8
55°	259.0	188.2	158.0	156.1	157.1
57.5°	225.5	169.8	143.9	144.3	145.8
60°	195.7	150.9	129.7	131.6	133.5
62.5°	169.8	133.5	116.0	118.9	120.8
65°	144.8	116.0	102.8	105.2	106.6
67.5°	122.6	99.5	89.6	92.5	92.9
70°	100.9	84.4	76.4	79.2	79.2
72.5°	82.1	68.9	63.7	65.1	65.6
75°	63.7	54.7	50.9	52.4	52.8
77.5°	48.1	41.5	38.7	40.1	39.6
80°	33.5	29.2	27.8	27.4	26.9
82.5°	20.8	18.4	17.0	17.5	17.0
85°	10.4	9.0	9.0	9.0	9.0
87.5°	3.3	3.3	3.3	3.3	3.3
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	18.37	19.87	18.73	20.18	20.50	16.86	18.36	17.23	18.68	18.99
	3H	19.95	21.30	20.33	21.63	21.99	18.58	19.92	18.96	20.25	20.61
	4H	20.48	21.74	20.88	22.09	22.47	19.16	20.42	19.56	20.77	21.15
	6H	20.80	21.97	21.22	22.34	22.73	19.51	20.67	19.92	21.04	21.43
	8H	20.88	21.99	21.31	22.38	22.78	19.58	20.69	20.01	21.08	21.48
	12H	20.91	21.97	21.34	22.35	22.78	19.61	20.67	20.04	21.06	21.49
4H	2H	18.68	19.94	19.08	20.29	20.67	17.42	18.69	17.82	19.04	19.42
	3H	20.46	21.51	20.87	21.91	22.31	19.34	20.39	19.75	20.79	21.19
	4H	21.09	22.03	21.52	22.45	22.89	20.04	20.98	20.47	21.40	21.84
	6H	21.52	22.34	21.98	22.78	23.24	20.49	21.31	20.95	21.75	22.21
	8H	21.63	22.39	22.09	22.84	23.31	20.59	21.36	21.06	21.80	22.27
	12H	21.68	22.36	22.16	22.84	23.31	20.65	21.33	21.13	21.81	22.28
8H	4H	21.24	22.00	21.70	22.45	22.91	20.28	21.04	20.74	21.49	21.96
	6H	21.74	22.37	22.24	22.87	23.34	20.82	21.45	21.31	21.94	22.42
	8H	21.89	22.45	22.40	22.97	23.45	20.97	21.53	21.48	22.04	22.53
	12H	21.98	22.48	22.49	22.97	23.54	21.06	21.56	21.57	22.05	22.62
12H	4H	21.23	21.92	21.72	22.40	22.87	20.29	20.97	20.77	21.45	21.92
	6H	21.75	22.31	22.26	22.82	23.31	20.84	21.40	21.35	21.91	22.40
	8H	21.93	22.43	22.44	22.92	23.49	21.03	21.53	21.54	22.02	22.59