

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: P1217313

Luminaire Tested: S122DRP-S290D850-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1217313  
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-S290D850-X4F0-XX-UDD-G-W  
Description: DEFINE 2, DIRECT RECESSED WITH GRAZE FLUSH OPTIC  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

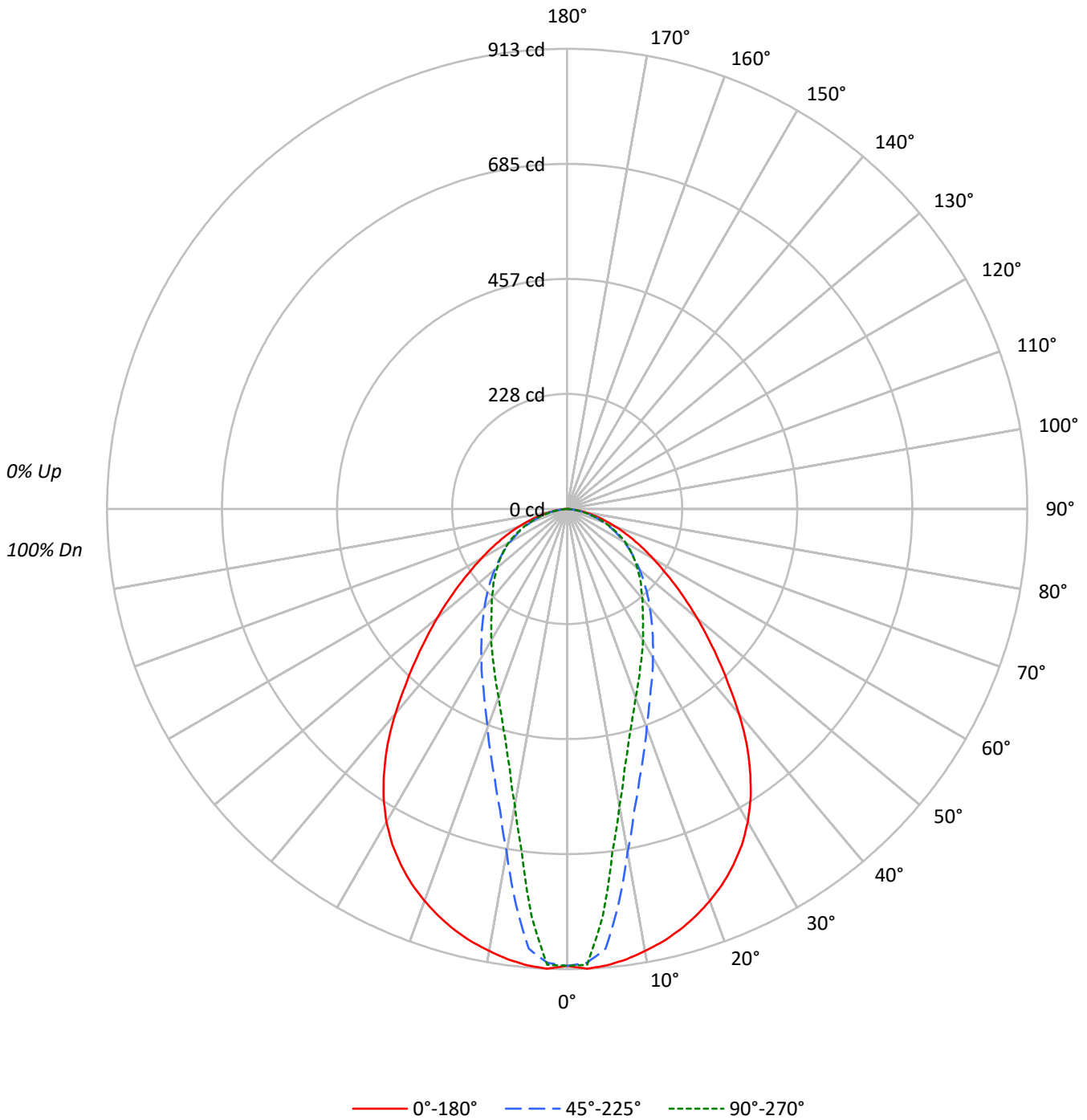
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1218.1 lumens  
Efficiency: N/A  
Efficacy: 96.7 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): 12.6  
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

TEST NUMBER: P1217313

CATALOG NUMBER: S122DRP-S290D850-X4F0-XX-UDD-G-W

### 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	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				87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75				75
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65				65
4	86	76	68	62	84	74	67	61	72	65	60	70	64	60	68	63	59	57				57
5	80	69	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	50				50
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45				45
7	70	57	49	44	68	57	49	44	55	48	43	54	48	43	52	47	43	41				41
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37				37
9	62	49	41	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34				34
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	43	37	33	31				31

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

	0°	45°	90°
0°	17173	17173	17173
5°	17284	16654	15422
10°	17130	13299	11499
15°	16955	10870	9283
20°	16684	9305	8008
25°	16299	8213	7187
30°	15681	7447	6589
35°	14633	6825	6060
40°	13120	6304	5743
45°	11414	5892	5536
50°	9909	5532	5338
55°	8575	5232	5202
60°	7434	4926	5070
65°	6509	4622	4792
70°	5606	4243	4398
75°	4670	3741	3880
80°	3666	3044	2946
85°	2261	1956	1956

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 11414 cd/sqm

TEST NUMBER: P1217313

CATALOG NUMBER: S122DRP-S290D850-X4F0-XX-UDD-G-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.0	6.4
10°-20°	172.1	14.1
20°-30°	211.1	17.3
30°-40°	218.2	17.9
40°-50°	197.1	16.2
50°-60°	159.7	13.1
60°-70°	111.9	9.2
70°-80°	57.7	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°	461.3	37.9
0°-40°	679.5	55.8
0°-60°	1036.2	85.1
0°-90°	1218.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1218.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	906	906	906	906	906	
5°	909	907	876	836	811	86
15°	864	729	554	494	473	244
25°	780	518	393	356	344	358
35°	633	382	295	270	262	393
45°	426	276	220	208	207	330
55°	260	189	158	156	158	234
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°	906.4	906.4	906.4	906.4	906.4
2.5°	913.1	909.8	901.2	909.3	905.0
5°	908.8	906.9	875.7	836.5	810.9
7.5°	901.2	894.6	786.8	712.6	687.5
10°	890.4	857.3	691.3	622.3	597.7
12.5°	879.0	801.0	614.2	549.4	527.2
15°	864.4	728.7	554.2	494.1	473.3
17.5°	847.3	665.8	506.4	448.7	432.2
20°	827.5	611.4	461.5	410.9	397.2
22.5°	805.7	565.5	424.1	383.0	370.2
25°	779.7	517.8	392.9	355.6	343.8
27.5°	750.9	481.4	366.9	331.9	322.0
30°	716.8	445.9	340.4	309.2	301.2
32.5°	678.1	412.8	316.8	289.4	279.9
35°	632.7	382.5	295.1	270.0	262.0
37.5°	584.4	352.7	274.2	252.5	245.9
40°	530.5	326.7	254.9	235.5	232.2
42.5°	475.2	300.7	237.4	220.8	218.0
45°	426.0	275.7	219.9	207.6	206.6
47.5°	378.3	253.0	203.8	194.3	193.4
50°	336.2	229.3	187.7	181.6	181.1
52.5°	296.0	208.5	172.6	169.3	170.2
55°	259.6	188.7	158.4	156.5	157.5
57.5°	226.0	170.2	144.2	144.7	146.1
60°	196.2	151.3	130.0	131.9	133.8
62.5°	170.2	133.8	116.3	119.2	121.0
65°	145.2	116.3	103.1	105.4	106.9
67.5°	122.9	99.8	89.8	92.7	93.2
70°	101.2	84.6	76.6	79.4	79.4
72.5°	82.3	69.0	63.8	65.3	65.7
75°	63.8	54.8	51.1	52.5	53.0
77.5°	48.2	41.6	38.8	40.2	39.7
80°	33.6	29.3	27.9	27.4	27.0
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	18.38	19.88	18.74	20.19	20.50	16.87	18.37	17.24	18.69	19.00
	3H	19.96	21.31	20.34	21.64	22.00	18.59	19.93	18.97	20.26	20.62
	4H	20.49	21.75	20.89	22.10	22.48	19.17	20.43	19.57	20.78	21.16
	6H	20.81	21.98	21.23	22.35	22.74	19.52	20.68	19.93	21.05	21.44
	8H	20.89	22.00	21.31	22.39	22.79	19.59	20.70	20.02	21.09	21.49
	12H	20.91	21.98	21.34	22.36	22.79	19.62	20.68	20.05	21.07	21.50
4H	2H	18.69	19.95	19.09	20.30	20.68	17.44	18.70	17.84	19.05	19.43
	3H	20.47	21.51	20.88	21.91	22.32	19.35	20.40	19.76	20.80	21.20
	4H	21.09	22.04	21.53	22.45	22.89	20.05	20.99	20.48	21.41	21.85
	6H	21.53	22.35	21.99	22.79	23.25	20.50	21.32	20.96	21.76	22.22
	8H	21.64	22.40	22.10	22.85	23.31	20.60	21.37	21.07	21.81	22.28
	12H	21.69	22.37	22.17	22.85	23.32	20.66	21.34	21.14	21.82	22.29
8H	4H	21.24	22.01	21.71	22.45	22.92	20.29	21.05	20.75	21.50	21.97
	6H	21.75	22.38	22.25	22.87	23.35	20.83	21.46	21.32	21.95	22.43
	8H	21.90	22.46	22.41	22.97	23.46	20.98	21.54	21.49	22.05	22.54
	12H	21.99	22.49	22.50	22.98	23.54	21.07	21.57	21.58	22.06	22.63
12H	4H	21.24	21.93	21.73	22.40	22.88	20.30	20.98	20.78	21.46	21.93
	6H	21.75	22.32	22.27	22.83	23.32	20.85	21.41	21.36	21.92	22.41
	8H	21.94	22.44	22.45	22.93	23.49	21.04	21.54	21.55	22.03	22.59