

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1057902

Luminaire Tested: S122RDR-S290D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1057902  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-56)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-S290D850-X4F0-XX-UDD-SVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

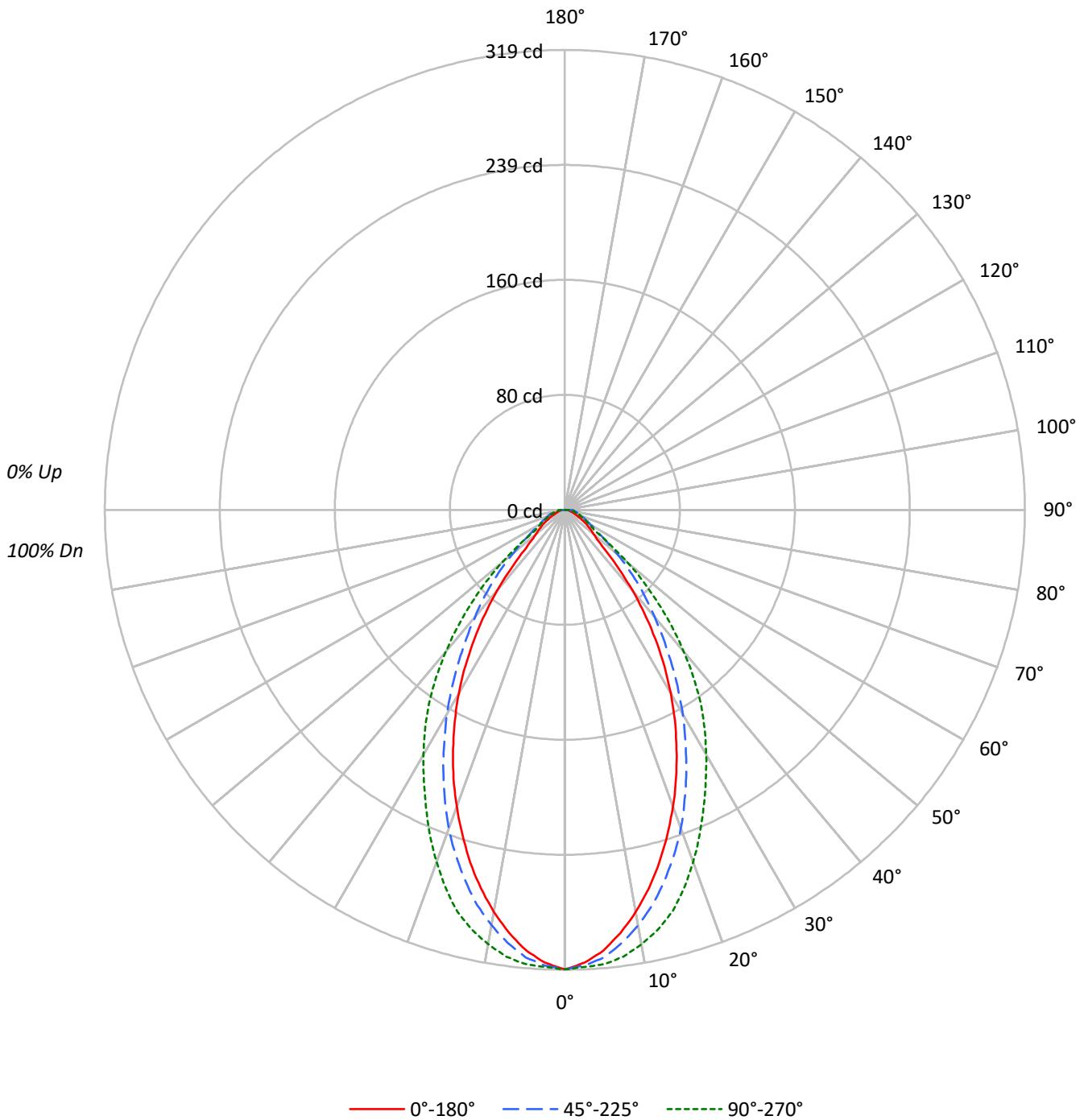
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 386.5 lumens  
Efficiency: N/A  
Efficacy: 30.9 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 12.5  
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: P1057902

CATALOG NUMBER: S122RDR-S290D850-X4F0-XX-UDD-SVL-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1057902

CATALOG NUMBER: S122RDR-S290D850-X4F0-XX-UDD-SVL-W

**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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39

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

	0°	45°	90°
0°	5881	5881	5881
5°	5683	5772	5859
10°	5306	5482	5732
15°	4839	5093	5509
20°	4304	4621	5106
25°	3732	4060	4638
30°	3128	3482	4176
35°	2464	2881	3701
40°	1756	2327	3090
45°	1039	1842	2398
50°	746	1332	1631
55°	624	959	824
60°	506	768	698
65°	415	681	642
70°	356	664	615
75°	335	677	606
80°	351	808	659
85°	508	1313	805

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2398 cd/sqm



TEST NUMBER: P1057902

CATALOG NUMBER: S122RDR-S290D850-X4F0-XX-UDD-SVL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.2	7.6
10°-20°	75.1	19.4
20°-30°	92.6	24.0
30°-40°	82.4	21.3
40°-50°	52.6	13.6
50°-60°	25.2	6.5
60°-70°	14.8	3.8
70°-80°	9.5	2.4
80°-90°	5.1	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°	197.0	51.0
0°-40°	279.4	72.3
0°-60°	357.2	92.4
0°-90°	386.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	386.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	319	319	319	319	319	
5°	307	312	312	314	316	29
15°	253	260	267	279	288	71
25°	183	190	199	214	228	84
35°	109	118	128	147	164	68
45°	40	52	71	82	92	33
55°	19	25	30	29	26	18
65°	10	17	16	14	15	10
75°	5	10	10	9	8	5
85°	2	6	6	5	4	2
90°	0	0	0	0	0	



TEST NUMBER: P1057902

CATALOG NUMBER: S122RDR-S290D850-X4F0-XX-UDD-SVL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	318.7	318.7	318.7	318.7	318.7
2.5°	314.4	319.6	316.3	316.3	317.3
5°	306.8	312.5	311.6	313.5	316.3
7.5°	296.0	302.1	303.1	308.3	312.5
10°	283.2	289.8	292.6	300.2	305.9
12.5°	269.0	275.6	280.8	290.3	298.3
15°	253.3	259.5	266.6	278.9	288.4
17.5°	236.3	244.3	251.4	264.2	275.1
20°	219.2	226.8	235.3	247.7	260.0
22.5°	201.7	208.8	217.3	230.1	244.3
25°	183.3	190.4	199.4	213.6	227.8
27.5°	165.3	172.4	180.9	196.5	211.7
30°	146.8	153.9	163.4	179.5	196.0
32.5°	128.3	135.9	145.4	162.9	180.4
35°	109.4	117.9	127.9	147.3	164.3
37.5°	90.9	99.4	111.8	130.7	146.8
40°	72.9	82.9	96.6	113.6	128.3
42.5°	55.4	66.3	83.3	97.1	109.9
45°	39.8	51.6	70.6	81.9	91.9
47.5°	30.3	38.8	58.2	67.2	74.3
50°	26.0	31.3	46.4	53.0	56.8
52.5°	22.7	27.5	36.9	40.2	40.2
55°	19.4	25.1	29.8	28.9	25.6
57.5°	16.6	22.7	24.6	20.8	21.8
60°	13.7	20.8	20.8	18.5	18.9
62.5°	11.4	19.4	18.0	16.1	16.6
65°	9.5	17.0	15.6	14.2	14.7
67.5°	7.6	15.2	13.7	12.8	12.8
70°	6.6	13.7	12.3	11.4	11.4
72.5°	5.7	11.8	10.9	9.9	9.9
75°	4.7	10.4	9.5	9.0	8.5
77.5°	4.3	9.0	8.5	7.6	7.1
80°	3.3	7.6	7.6	7.1	6.2
82.5°	2.8	6.6	6.6	6.2	5.2
85°	2.4	5.7	6.2	5.2	3.8
87.5°	1.9	5.2	5.2	4.3	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)