

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: P1057900

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1057900
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)
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-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

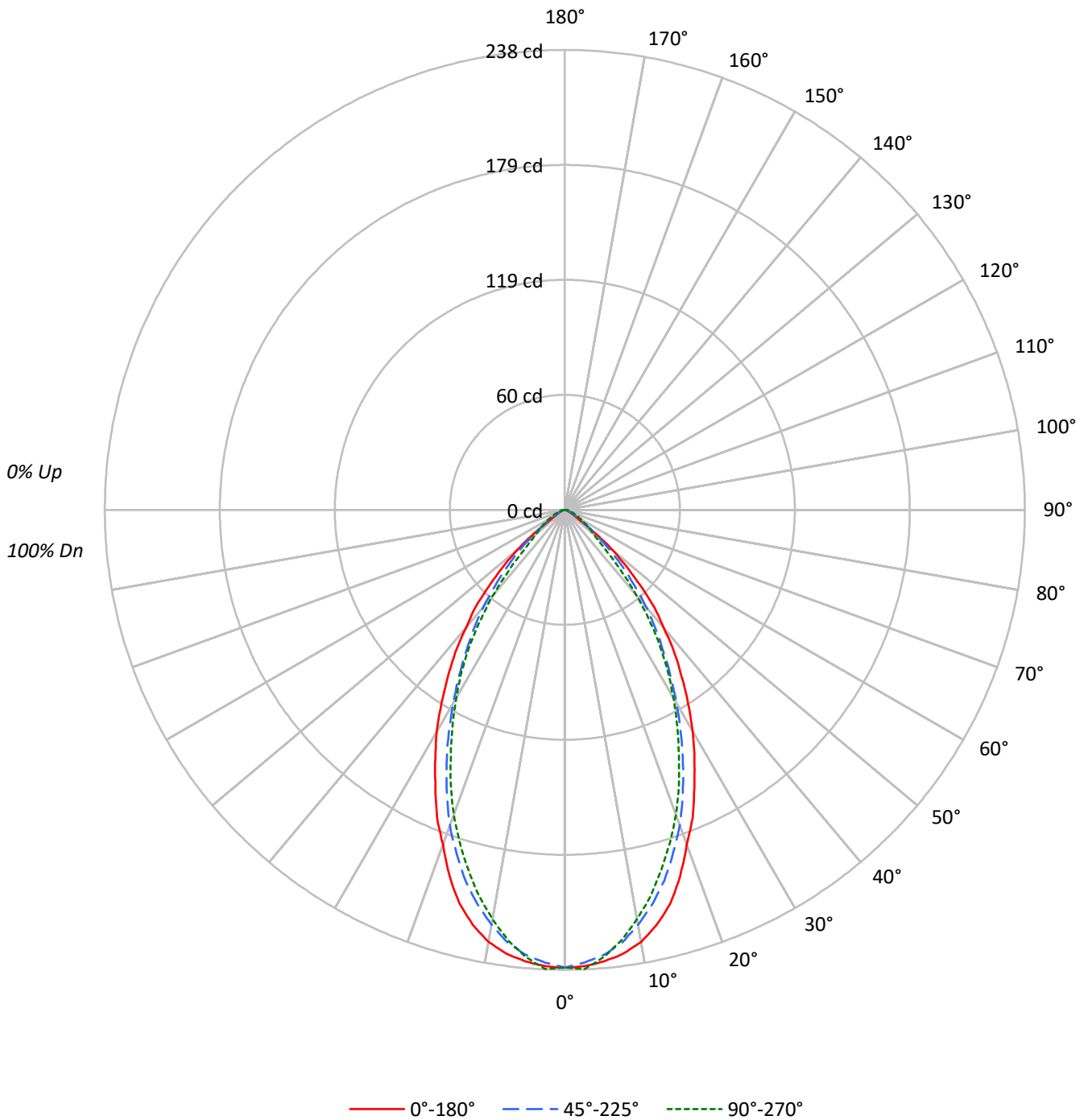
Lumens per Lamp: N/A
Luminaire Lumens: 254.8 lumens
Efficiency: N/A
Efficacy: 20.4 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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: P1057900

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

Luminous Intensity Polar Plot





TEST NUMBER: P1057900

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

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	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4371	4371	4371
5°	4344	4283	4301
10°	4253	4085	4030
15°	4029	3794	3685
20°	3621	3417	3297
25°	3225	2946	2840
30°	2821	2459	2389
35°	2374	1991	1928
40°	1913	1573	1390
45°	1430	1135	827
50°	896	732	543
55°	306	396	441
60°	173	244	351
65°	122	166	266
70°	103	129	205
75°	64	100	171
80°	53	96	149
85°	0	0	106

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1430 cd/sqm



TEST NUMBER: P1057900

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.8	8.6
10°-20°	55.9	21.9
20°-30°	67.3	26.4
30°-40°	57.5	22.6
40°-50°	33.7	13.2
50°-60°	12.2	4.8
60°-70°	4.3	1.7
70°-80°	1.7	0.7
80°-90°	0.3	0.1
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°	145.0	56.9
0°-40°	202.5	79.5
0°-60°	248.4	97.5
0°-90°	254.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	254.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	237	237	237	237	237	
5°	234	235	231	232	232	22
15°	211	208	199	195	193	59
25°	158	152	145	142	140	73
35°	105	97	88	88	86	66
45°	55	49	44	36	32	42
55°	10	13	12	13	14	12
65°	3	3	4	5	6	3
75°	1	1	1	2	2	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



TEST NUMBER: P1057900

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	236.9	236.9	236.9	236.9	236.9
2.5°	236.4	236.9	234.5	236.9	237.8
5°	234.5	235.0	231.2	232.2	232.2
7.5°	231.7	231.2	226.0	225.1	224.6
10°	227.0	225.5	218.0	216.6	215.1
12.5°	219.9	217.0	209.0	206.6	204.7
15°	210.9	207.6	198.6	194.8	192.9
17.5°	198.6	194.8	186.3	182.5	180.6
20°	184.4	180.6	174.0	169.7	167.9
22.5°	172.6	166.4	159.3	156.5	154.1
25°	158.4	151.8	144.7	142.3	139.5
27.5°	145.2	137.1	130.0	128.1	125.8
30°	132.4	123.9	115.4	115.4	112.1
32.5°	118.7	110.6	101.7	101.2	99.3
35°	105.4	97.4	88.4	87.5	85.6
37.5°	93.1	85.1	76.6	73.8	71.4
40°	79.4	72.3	65.3	60.5	57.7
42.5°	68.6	60.5	53.4	47.8	44.0
45°	54.8	49.2	43.5	36.4	31.7
47.5°	42.6	38.8	34.0	26.0	23.6
50°	31.2	29.3	25.5	19.4	18.9
52.5°	19.9	20.8	18.4	15.1	16.5
55°	9.5	13.2	12.3	12.8	13.7
57.5°	6.1	6.6	9.0	10.4	11.3
60°	4.7	4.7	6.6	8.5	9.5
62.5°	3.8	3.8	5.2	7.1	7.6
65°	2.8	3.3	3.8	5.2	6.1
67.5°	2.4	2.4	2.8	4.3	4.7
70°	1.9	1.9	2.4	3.3	3.8
72.5°	1.4	1.4	1.9	2.8	2.8
75°	0.9	1.4	1.4	1.9	2.4
77.5°	0.9	0.9	0.9	1.4	1.9
80°	0.5	0.5	0.9	0.9	1.4
82.5°	0.5	0.5	0.5	0.5	0.9
85°	0.0	0.0	0.0	0.5	0.5
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)