

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P1058289

Luminaire Tested: S122RDR-H290D835-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058289
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-H290D835-X4F0-XX-UDD-SVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

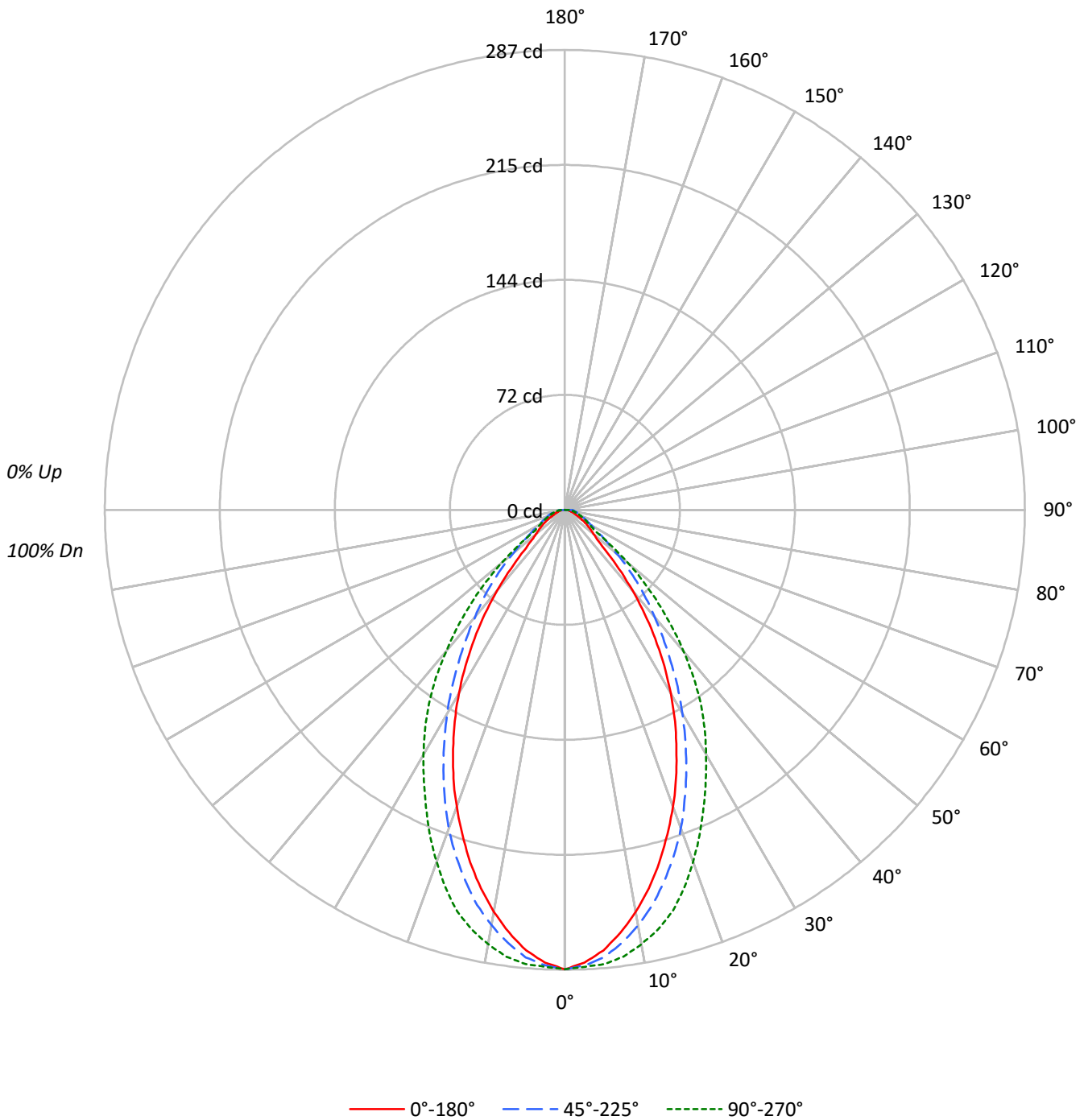
Lumens per Lamp: N/A
Luminaire Lumens: 347.7 lumens
Efficiency: N/A
Efficacy: 29.7 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P1058289

CATALOG NUMBER: S122RDR-H290D835-X4F0-XX-UDD-SVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1058289

CATALOG NUMBER: S122RDR-H290D835-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	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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89				89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72				72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65				65
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59				59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50				50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46				46
9	67	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	42				42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5290	5290	5290
5°	5112	5192	5270
10°	4772	4932	5156
15°	4354	4581	4955
20°	3872	4157	4591
25°	3355	3651	4172
30°	2813	3130	3756
35°	2217	2591	3329
40°	1580	2093	2780
45°	934	1657	2156
50°	672	1197	1467
55°	563	862	740
60°	458	690	627
65°	371	616	576
70°	324	599	550
75°	307	606	549
80°	319	723	584
85°	445	1164	720

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2156 cd/sqm



TEST NUMBER: P1058289

CATALOG NUMBER: S122RDR-H290D835-X4F0-XX-UDD-SVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.3	7.6
10°-20°	67.5	19.4
20°-30°	83.3	24.0
30°-40°	74.1	21.3
40°-50°	47.3	13.6
50°-60°	22.7	6.5
60°-70°	13.3	3.8
70°-80°	8.5	2.4
80°-90°	4.5	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°	177.2	51.0
0°-40°	251.3	72.3
0°-60°	321.3	92.4
0°-90°	347.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	347.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	287	287	287	287	287	
5°	276	281	280	282	284	26
15°	228	233	240	251	259	64
25°	165	171	179	192	205	75
35°	98	106	115	132	148	61
45°	36	46	64	74	83	30
55°	18	23	27	26	23	16
65°	8	15	14	13	13	9
75°	4	9	8	8	8	5
85°	2	5	6	5	3	2
90°	0	0	0	0	0	

TEST NUMBER: P1058289

CATALOG NUMBER: S122RDR-H290D835-X4F0-XX-UDD-SVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	286.7	286.7	286.7	286.7	286.7
2.5°	282.8	287.5	284.5	284.5	285.4
5°	276.0	281.1	280.3	282.0	284.5
7.5°	266.2	271.7	272.6	277.3	281.1
10°	254.7	260.7	263.2	270.0	275.2
12.5°	241.9	247.9	252.6	261.1	268.3
15°	227.9	233.4	239.8	250.9	259.4
17.5°	212.5	219.8	226.2	237.7	247.5
20°	197.2	204.0	211.7	222.8	233.8
22.5°	181.5	187.8	195.5	207.0	219.8
25°	164.8	171.2	179.3	192.1	204.9
27.5°	148.7	155.0	162.7	176.8	190.4
30°	132.0	138.4	146.9	161.4	176.3
32.5°	115.4	122.2	130.8	146.5	162.3
35°	98.4	106.1	115.0	132.5	147.8
37.5°	81.8	89.4	100.5	117.6	132.0
40°	65.6	74.5	86.9	102.2	115.4
42.5°	49.8	59.6	75.0	87.3	98.8
45°	35.8	46.4	63.5	73.7	82.6
47.5°	27.3	34.9	52.4	60.5	66.9
50°	23.4	28.1	41.7	47.7	51.1
52.5°	20.4	24.7	33.2	36.2	36.2
55°	17.5	22.6	26.8	26.0	23.0
57.5°	14.9	20.4	22.1	18.7	19.6
60°	12.4	18.7	18.7	16.6	17.0
62.5°	10.2	17.5	16.2	14.5	14.9
65°	8.5	15.3	14.1	12.8	13.2
67.5°	6.8	13.6	12.4	11.5	11.5
70°	6.0	12.4	11.1	10.2	10.2
72.5°	5.1	10.6	9.8	8.9	8.9
75°	4.3	9.4	8.5	8.1	7.7
77.5°	3.8	8.1	7.7	6.8	6.4
80°	3.0	6.8	6.8	6.4	5.5
82.5°	2.6	6.0	6.0	5.5	4.7
85°	2.1	5.1	5.5	4.7	3.4
87.5°	1.7	4.7	4.7	3.8	2.6
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058289
 CATALOG NUMBER: S122RDR-H290D835-X4F0-XX-UDD-SVL-W

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	7.45	8.72	7.81	9.03	9.35	7.24	8.51	7.60	8.83	9.14
	3H	8.68	9.82	9.06	10.15	10.51	8.83	9.97	9.21	10.30	10.66
	4H	9.14	10.20	9.54	10.55	10.93	9.55	10.61	9.95	10.96	11.34
	6H	9.52	10.49	9.93	10.86	11.26	10.20	11.18	10.62	11.55	11.94
	8H	9.68	10.60	10.11	10.99	11.40	10.53	11.45	10.96	11.85	12.25
	12H	9.83	10.72	10.27	11.10	11.53	10.83	11.71	11.26	12.10	12.53
4H	2H	8.00	9.06	8.40	9.41	9.80	7.84	8.90	8.24	9.25	9.63
	3H	9.70	10.57	10.11	10.98	11.38	9.67	10.54	10.09	10.95	11.35
	4H	10.50	11.28	10.94	11.70	12.15	10.55	11.33	10.98	11.75	12.19
	6H	11.14	11.82	11.61	12.27	12.73	11.39	12.07	11.86	12.52	12.98
	8H	11.40	12.03	11.87	12.48	12.95	11.82	12.45	12.29	12.90	13.37
	12H	11.64	12.20	12.13	12.69	13.16	12.22	12.78	12.70	13.26	13.74
8H	4H	10.92	11.55	11.39	12.00	12.47	10.97	11.60	11.44	12.05	12.52
	6H	11.90	12.41	12.40	12.91	13.39	12.05	12.57	12.55	13.07	13.55
	8H	12.39	12.86	12.91	13.37	13.87	12.64	13.11	13.16	13.62	14.12
	12H	12.89	13.31	13.41	13.80	14.37	13.24	13.66	13.76	14.15	14.72
12H	4H	10.99	11.55	11.47	12.03	12.50	11.04	11.60	11.53	12.09	12.56
	6H	12.06	12.53	12.59	13.05	13.54	12.22	12.68	12.74	13.20	13.69
	8H	12.71	13.12	13.22	13.61	14.19	12.93	13.34	13.44	13.84	14.41