

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: P1058291

Luminaire Tested: S122RDRP-H290D835-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058291
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-H290D835-X4F0-XX-UDD-WVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

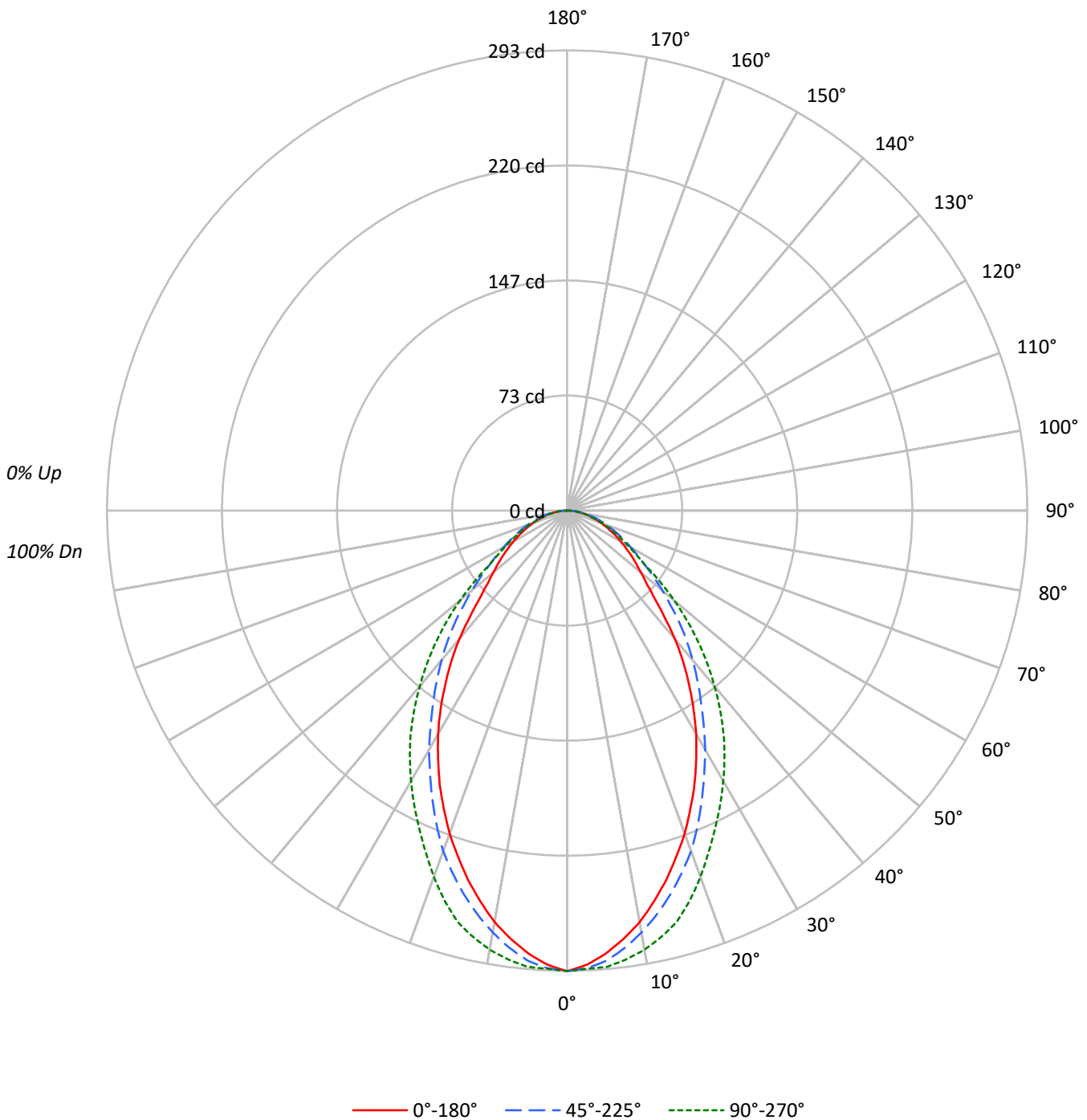
Lumens per Lamp: N/A
Luminaire Lumens: 477.6 lumens
Efficiency: N/A
Efficacy: 40.8 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
Input Voltage (V): 120
Input Current (A_{in}): 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: P1058291

CATALOG NUMBER: S122RDRP-H290D835-X4F0-XX-UDD-WVL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1058291

CATALOG NUMBER: S122RDRP-H290D835-X4F0-XX-UDD-WVL-S

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	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87
2	102	95	89	84	100	93	88	83	90	85	81	86	83	79	84	80	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36
10	59	47	40	35	58	46	39	35	45	39	35	45	39	34	44	38	34	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5412	5412	5412
5°	5244	5329	5401
10°	4984	5111	5319
15°	4652	4839	5171
20°	4297	4530	4874
25°	3909	4133	4540
30°	3501	3746	4236
35°	3050	3347	3913
40°	2573	2994	3517
45°	2043	2643	3077
50°	1760	2274	2555
55°	1602	1943	1959
60°	1461	1727	1664
65°	1336	1563	1467
70°	1241	1446	1311
75°	1155	1369	1155
80°	1084	1307	1041
85°	1080	1355	910

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3077 cd/sqm

TEST NUMBER: P1058291

CATALOG NUMBER: S122RDRP-H290D835-X4F0-XX-UDD-WVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.1	5.7
10°-20°	71.6	15.0
20°-30°	94.2	19.7
30°-40°	94.7	19.8
40°-50°	76.8	16.1
50°-60°	52.9	11.1
60°-70°	34.6	7.2
70°-80°	19.3	4.0
80°-90°	6.5	1.4
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°	192.8	40.4
0°-40°	287.5	60.2
0°-60°	417.1	87.3
0°-90°	477.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	477.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	293	293	293	293	293	
5°	283	289	288	289	292	26
15°	244	249	253	263	271	68
25°	192	197	203	212	223	88
35°	135	142	149	162	174	84
45°	78	87	101	110	118	62
55°	50	55	60	62	61	45
65°	31	37	36	34	34	31
75°	16	20	19	17	16	17
85°	5	7	6	6	4	6
90°	0	0	0	0	0	



TEST NUMBER: P1058291

CATALOG NUMBER: S122RDRP-H290D835-X4F0-XX-UDD-WVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	293.3	293.3	293.3	293.3	293.3
2.5°	289.4	294.5	291.6	291.6	292.0
5°	283.1	288.6	287.7	289.0	291.6
7.5°	275.0	280.9	280.9	284.8	288.2
10°	266.0	272.0	272.8	278.8	283.9
12.5°	255.0	260.9	263.5	271.1	277.9
15°	243.5	249.4	253.3	262.6	270.7
17.5°	231.1	237.1	242.2	252.0	260.1
20°	218.8	224.3	230.7	239.2	248.2
22.5°	205.2	211.1	217.1	225.2	235.4
25°	192.0	197.1	203.0	212.0	223.0
27.5°	177.9	183.5	189.0	199.6	211.1
30°	164.3	169.8	175.8	186.9	198.8
32.5°	149.8	155.8	161.7	174.1	186.4
35°	135.4	141.7	148.6	161.7	173.7
37.5°	121.3	128.1	136.2	149.8	160.0
40°	106.8	114.1	124.3	136.2	146.0
42.5°	91.5	100.5	112.8	123.0	132.0
45°	78.3	87.3	101.3	110.2	117.9
47.5°	68.5	75.8	89.4	97.0	103.4
50°	61.3	66.8	79.2	84.7	89.0
52.5°	55.3	60.9	69.4	73.2	74.5
55°	49.8	55.3	60.4	61.7	60.9
57.5°	44.3	50.2	53.2	51.9	51.9
60°	39.6	46.0	46.8	45.1	45.1
62.5°	34.9	41.3	41.3	39.2	39.2
65°	30.6	36.6	35.8	34.1	33.6
67.5°	26.8	32.3	31.1	29.4	28.9
70°	23.0	28.1	26.8	24.7	24.3
72.5°	19.6	24.3	22.6	20.9	20.0
75°	16.2	20.0	19.2	17.0	16.2
77.5°	13.2	16.2	15.3	13.6	12.8
80°	10.2	12.8	12.3	10.6	9.8
82.5°	7.7	9.8	9.4	8.1	6.8
85°	5.1	6.8	6.4	5.5	4.3
87.5°	2.6	4.7	4.3	3.8	2.1
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058291
 CATALOG NUMBER: S122RDRP-H290D835-X4F0-XX-UDD-WVL-S

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	12.59	14.03	12.96	14.35	14.66	12.95	14.39	13.32	14.71	15.02
	3H	14.14	15.43	14.52	15.76	16.12	14.30	15.59	14.68	15.92	16.28
	4H	14.71	15.92	15.11	16.27	16.65	14.78	15.99	15.18	16.34	16.72
	6H	15.14	16.26	15.55	16.62	17.02	15.14	16.25	15.55	16.62	17.01
	8H	15.30	16.36	15.72	16.75	17.15	15.25	16.31	15.68	16.70	17.11
	12H	15.41	16.43	15.84	16.81	17.24	15.33	16.34	15.76	16.73	17.16
4H	2H	13.18	14.39	13.58	14.74	15.12	13.47	14.68	13.87	15.03	15.41
	3H	15.00	16.00	15.41	16.41	16.81	15.04	16.04	15.45	16.45	16.85
	4H	15.75	16.65	16.19	17.07	17.51	15.65	16.55	16.08	16.96	17.40
	6H	16.34	17.12	16.80	17.57	18.03	16.13	16.91	16.59	17.36	17.82
	8H	16.55	17.28	17.02	17.73	18.20	16.29	17.02	16.76	17.47	17.94
	12H	16.72	17.37	17.20	17.85	18.32	16.41	17.07	16.90	17.55	18.02
8H	4H	16.04	16.77	16.50	17.21	17.68	15.95	16.68	16.41	17.12	17.59
	6H	16.79	17.40	17.29	17.89	18.37	16.56	17.17	17.06	17.66	18.14
	8H	17.12	17.66	17.63	18.17	18.66	16.81	17.36	17.33	17.87	18.36
	12H	17.40	17.88	17.92	18.38	18.94	17.03	17.50	17.54	18.00	18.56
12H	4H	16.06	16.71	16.54	17.19	17.66	15.98	16.64	16.47	17.11	17.59
	6H	16.85	17.40	17.37	17.91	18.40	16.64	17.19	17.16	17.70	18.19
	8H	17.25	17.73	17.76	18.23	18.79	16.96	17.44	17.47	17.93	18.50