

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: P1057895

Luminaire Tested: S122RDRP-S290D840-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057895
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-S290D840-X4F0-XX-UDD-WVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

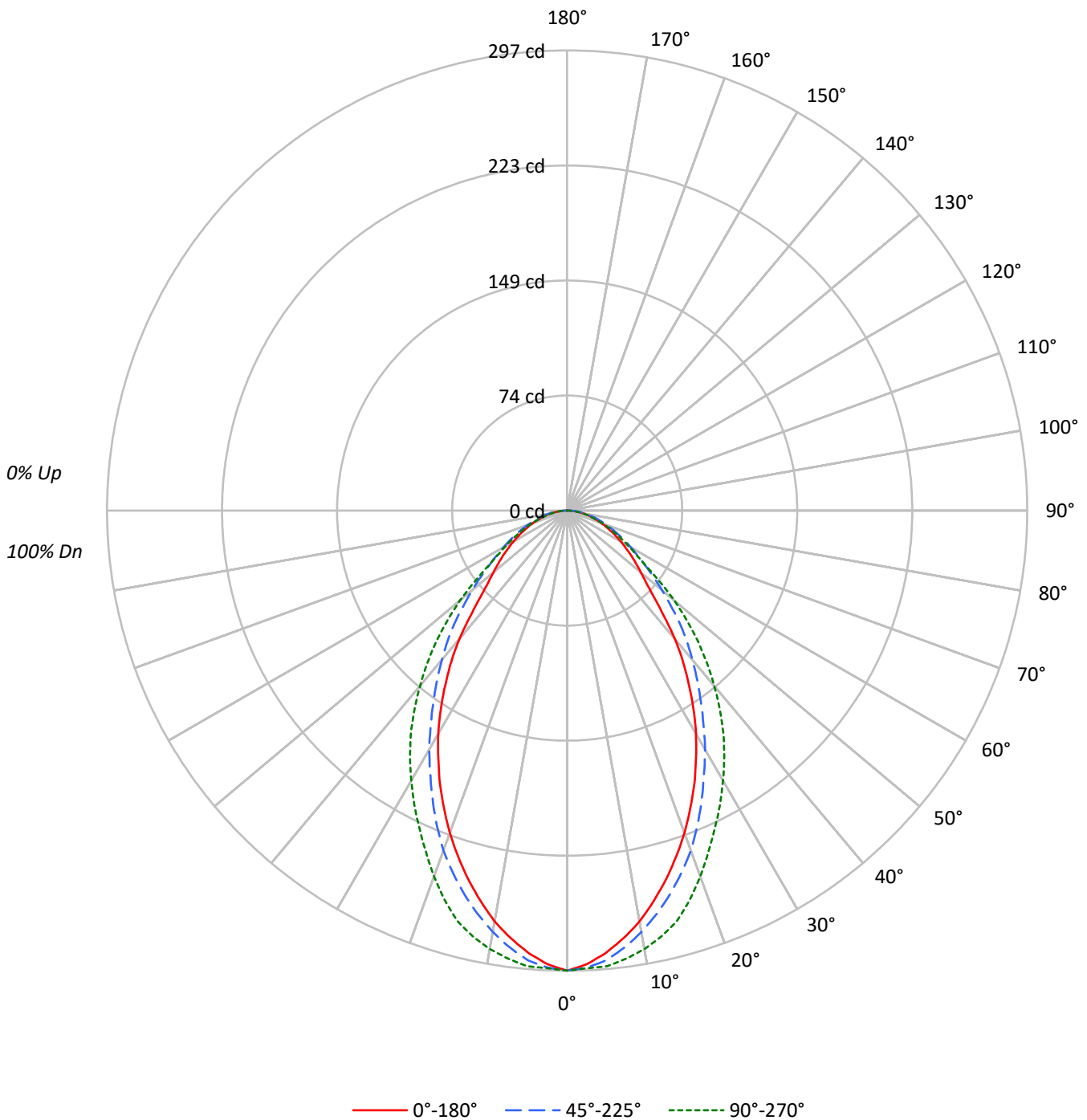
Lumens per Lamp: N/A
Luminaire Lumens: 483.4 lumens
Efficiency: N/A
Efficacy: 38.7 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
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: P1057895

CATALOG NUMBER: S122RDRP-S290D840-X4F0-XX-UDD-WVL-S

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5479	5479	5479
5°	5309	5396	5468
10°	5046	5175	5385
15°	4709	4898	5236
20°	4350	4585	4933
25°	3956	4184	4597
30°	3543	3793	4287
35°	3086	3388	3960
40°	2606	3030	3560
45°	2069	2677	3116
50°	1783	2299	2586
55°	1621	1969	1982
60°	1480	1749	1687
65°	1354	1581	1485
70°	1257	1462	1327
75°	1169	1383	1169
80°	1095	1328	1052
85°	1101	1376	910

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3116 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.4	5.7
10°-20°	72.5	15.0
20°-30°	95.3	19.7
30°-40°	95.9	19.8
40°-50°	77.7	16.1
50°-60°	53.5	11.1
60°-70°	35.0	7.2
70°-80°	19.5	4.0
80°-90°	6.6	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°	195.2	40.4
0°-40°	291.1	60.2
0°-60°	422.3	87.4
0°-90°	483.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	483.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	297	297	297	297	297	
5°	287	292	291	293	295	27
15°	246	252	256	266	274	69
25°	194	200	206	215	226	89
35°	137	144	150	164	176	85
45°	79	88	103	112	119	63
55°	50	56	61	62	62	45
65°	31	37	36	34	34	31
75°	16	20	19	17	16	18
85°	5	7	6	6	4	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	296.9	296.9	296.9	296.9	296.9
2.5°	293.0	298.2	295.2	295.2	295.6
5°	286.6	292.2	291.3	292.6	295.2
7.5°	278.4	284.4	284.4	288.3	291.7
10°	269.3	275.3	276.2	282.2	287.4
12.5°	258.1	264.1	266.7	274.5	281.4
15°	246.5	252.5	256.4	265.9	274.1
17.5°	234.0	240.0	245.2	255.1	263.3
20°	221.5	227.1	233.5	242.2	251.2
22.5°	207.7	213.7	219.8	227.9	238.3
25°	194.3	199.5	205.5	214.6	225.8
27.5°	180.1	185.7	191.3	202.1	213.7
30°	166.3	171.9	178.0	189.2	201.2
32.5°	151.7	157.7	163.7	176.2	188.7
35°	137.0	143.5	150.4	163.7	175.8
37.5°	122.8	129.7	137.9	151.7	162.0
40°	108.2	115.5	125.8	137.9	147.8
42.5°	92.6	101.7	114.2	124.5	133.6
45°	79.3	88.3	102.6	111.6	119.4
47.5°	69.4	76.7	90.5	98.2	104.7
50°	62.1	67.7	80.1	85.7	90.1
52.5°	56.0	61.6	70.2	74.1	75.4
55°	50.4	56.0	61.2	62.5	61.6
57.5°	44.8	50.8	53.9	52.6	52.6
60°	40.1	46.5	47.4	45.7	45.7
62.5°	35.3	41.8	41.8	39.6	39.6
65°	31.0	37.1	36.2	34.5	34.0
67.5°	27.1	32.7	31.5	29.7	29.3
70°	23.3	28.4	27.1	25.0	24.6
72.5°	19.8	24.6	22.8	21.1	20.3
75°	16.4	20.3	19.4	17.2	16.4
77.5°	13.4	16.4	15.5	13.8	12.9
80°	10.3	12.9	12.5	10.8	9.9
82.5°	7.8	9.9	9.5	8.2	6.9
85°	5.2	6.9	6.5	5.6	4.3
87.5°	2.6	4.7	4.3	3.9	2.2
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	12.63	14.07	13.00	14.39	14.70	13.00	14.44	13.37	14.76	15.07
	3H	14.18	15.47	14.56	15.80	16.16	14.35	15.64	14.73	15.97	16.33
	4H	14.75	15.96	15.15	16.31	16.69	14.83	16.04	15.23	16.39	16.77
	6H	15.18	16.30	15.60	16.66	17.06	15.18	16.30	15.60	16.67	17.06
	8H	15.34	16.40	15.76	16.79	17.19	15.30	16.36	15.73	16.75	17.15
	12H	15.45	16.47	15.88	16.85	17.28	15.37	16.39	15.81	16.77	17.20
4H	2H	13.22	14.43	13.62	14.78	15.16	13.52	14.72	13.92	15.07	15.45
	3H	15.04	16.04	15.45	16.44	16.85	15.09	16.09	15.50	16.49	16.89
	4H	15.79	16.69	16.23	17.11	17.55	15.69	16.59	16.12	17.01	17.45
	6H	16.38	17.16	16.84	17.61	18.07	16.17	16.96	16.63	17.40	17.86
	8H	16.59	17.32	17.05	17.77	18.24	16.34	17.07	16.80	17.51	17.98
	12H	16.76	17.41	17.24	17.89	18.36	16.46	17.11	16.94	17.59	18.06
8H	4H	16.08	16.81	16.54	17.25	17.72	15.99	16.72	16.46	17.17	17.64
	6H	16.83	17.44	17.33	17.93	18.41	16.61	17.21	17.11	17.71	18.19
	8H	17.16	17.70	17.67	18.21	18.70	16.86	17.40	17.38	17.91	18.40
	12H	17.44	17.92	17.96	18.42	18.98	17.07	17.55	17.58	18.04	18.61
12H	4H	16.10	16.75	16.58	17.23	17.70	16.03	16.68	16.51	17.16	17.63
	6H	16.89	17.44	17.41	17.95	18.44	16.69	17.23	17.20	17.74	18.23
	8H	17.29	17.77	17.80	18.26	18.83	17.01	17.49	17.52	17.98	18.55