

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: P1057901

Luminaire Tested: S122RDRP-S290D850-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057901
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-59)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S290D850-X4F0-XX-UDD-SVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

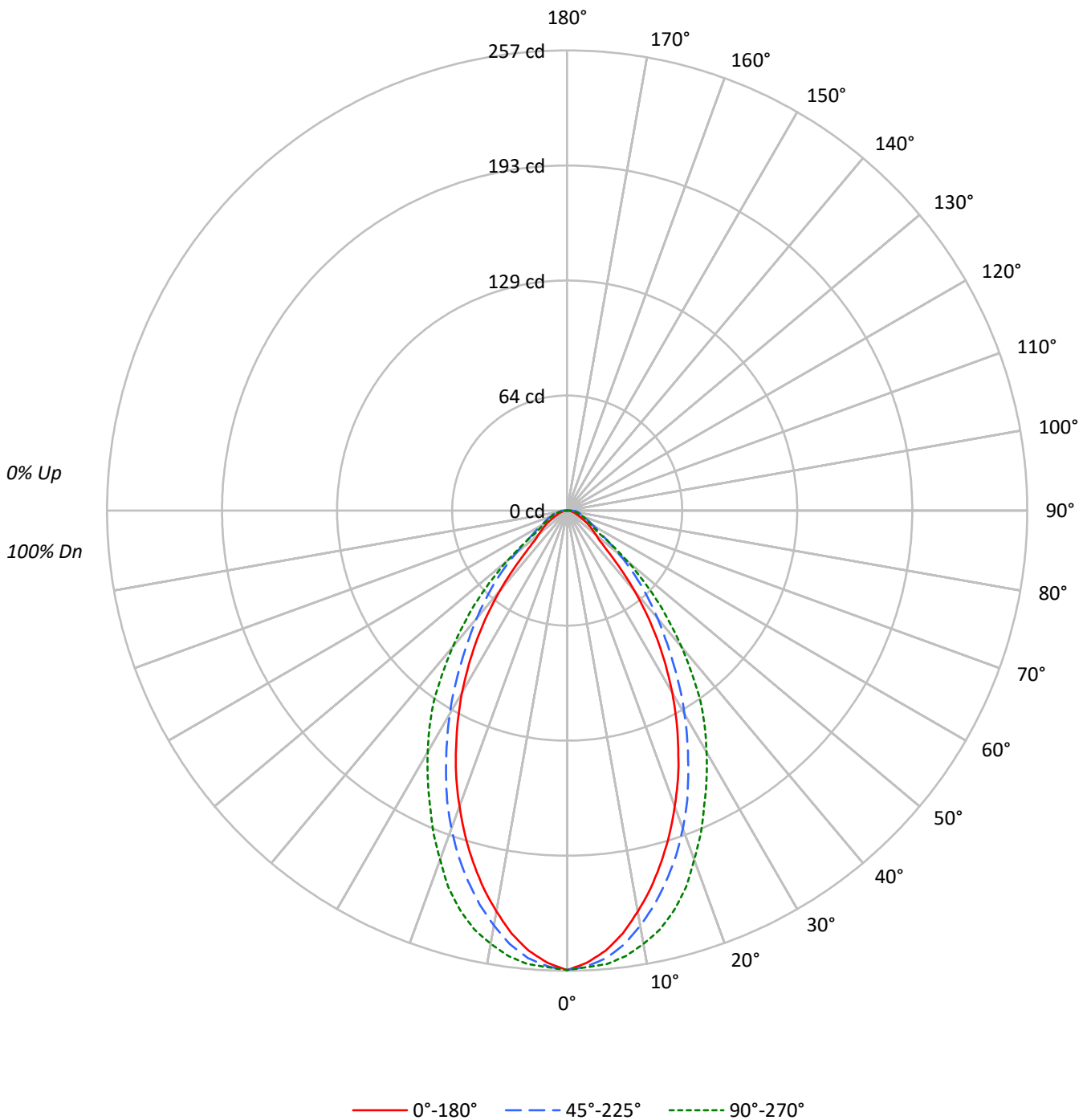
Lumens per Lamp: N/A
Luminaire Lumens: 309.6 lumens
Efficiency: N/A
Efficacy: 24.8 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.97 / 0.94
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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

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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	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	101	99	97	98	96	94	94	93	91	89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	82	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	66	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	44	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°	4735	4735	4735
5°	4570	4647	4709
10°	4259	4409	4604
15°	3880	4088	4413
20°	3450	3709	4073
25°	2989	3258	3691
30°	2501	2793	3320
35°	1973	2313	2922
40°	1414	1893	2394
45°	827	1495	1853
50°	597	1088	1252
55°	502	775	656
60°	402	627	561
65°	332	559	515
70°	281	534	486
75°	271	570	471
80°	298	701	499
85°	508	1101	699

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1853 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.5	7.6
10°-20°	60.2	19.5
20°-30°	74.0	23.9
30°-40°	65.5	21.1
40°-50°	41.8	13.5
50°-60°	20.4	6.6
60°-70°	12.1	3.9
70°-80°	7.7	2.5
80°-90°	4.3	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°	157.8	51.0
0°-40°	223.3	72.1
0°-60°	285.4	92.2
0°-90°	309.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	309.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	257	257	257	257	257	
5°	247	252	251	252	254	23
15°	203	209	214	224	231	57
25°	147	152	160	170	181	67
35°	88	92	103	117	130	54
45°	32	41	57	64	71	27
55°	16	21	24	23	20	14
65°	8	14	13	12	12	8
75°	4	8	8	7	7	4
85°	2	5	5	5	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	256.6	256.6	256.6	256.6	256.6
2.5°	252.8	257.6	254.7	254.7	255.2
5°	246.7	251.9	250.9	251.9	254.2
7.5°	238.2	243.4	244.3	248.1	250.9
10°	227.3	232.5	235.3	241.5	245.7
12.5°	215.9	221.1	225.4	233.4	239.6
15°	203.1	208.8	214.0	223.5	231.0
17.5°	189.9	195.5	202.2	211.6	220.6
20°	175.7	180.9	188.9	197.9	207.4
22.5°	161.9	166.7	175.2	183.7	195.1
25°	146.8	152.0	160.0	170.0	181.3
27.5°	132.1	137.3	145.4	156.7	168.6
30°	117.4	122.2	131.1	143.0	155.8
32.5°	102.3	107.0	116.9	129.7	143.0
35°	87.6	92.3	102.7	116.9	129.7
37.5°	72.9	78.1	90.0	103.2	114.1
40°	58.7	64.9	78.6	90.0	99.4
42.5°	44.5	53.0	67.7	77.2	84.7
45°	31.7	40.7	57.3	64.4	71.0
47.5°	24.1	31.2	47.3	52.6	56.8
50°	20.8	25.6	37.9	41.7	43.6
52.5°	18.0	22.7	30.3	31.7	30.8
55°	15.6	20.8	24.1	22.7	20.4
57.5°	13.3	19.4	19.9	17.0	17.5
60°	10.9	17.5	17.0	14.7	15.2
62.5°	9.0	16.1	14.7	13.3	13.3
65°	7.6	14.2	12.8	11.8	11.8
67.5°	6.2	12.8	11.4	10.4	10.4
70°	5.2	11.4	9.9	9.0	9.0
72.5°	4.7	9.9	9.0	8.0	8.0
75°	3.8	8.5	8.0	7.1	6.6
77.5°	3.3	7.1	7.1	6.6	5.7
80°	2.8	6.2	6.6	5.7	4.7
82.5°	2.8	5.7	5.7	5.2	3.8
85°	2.4	4.7	5.2	4.7	3.3
87.5°	1.4	4.3	4.3	3.8	2.4
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	7.43	8.71	7.79	9.02	9.34	6.94	8.22	7.31	8.53	8.85
	3H	8.61	9.75	8.99	10.08	10.45	8.51	9.65	8.89	9.98	10.34
	4H	9.04	10.10	9.44	10.45	10.84	9.19	10.25	9.59	10.60	10.98
	6H	9.38	10.36	9.80	10.73	11.12	9.84	10.81	10.25	11.18	11.58
	8H	9.57	10.50	10.00	10.89	11.30	10.13	11.05	10.56	11.44	11.85
	12H	9.79	10.68	10.23	11.06	11.49	10.44	11.33	10.88	11.71	12.14
4H	2H	7.93	9.00	8.34	9.35	9.73	7.55	8.61	7.95	8.96	9.34
	3H	9.58	10.46	10.00	10.86	11.27	9.35	10.22	9.76	10.63	11.03
	4H	10.34	11.13	10.78	11.55	11.99	10.19	10.97	10.62	11.39	11.83
	6H	10.94	11.62	11.41	12.07	12.54	11.04	11.72	11.51	12.17	12.64
	8H	11.24	11.88	11.71	12.32	12.79	11.43	12.07	11.90	12.52	12.99
	12H	11.55	12.12	12.04	12.60	13.07	11.87	12.43	12.36	12.92	13.39
8H	4H	10.76	11.39	11.23	11.84	12.31	10.64	11.28	11.11	11.73	12.20
	6H	11.71	12.23	12.21	12.73	13.21	11.75	12.28	12.26	12.77	13.25
	8H	12.26	12.72	12.78	13.24	13.73	12.33	12.80	12.86	13.32	13.81
	12H	12.82	13.23	13.33	13.73	14.30	13.00	13.41	13.51	13.91	14.48
12H	4H	10.83	11.39	11.31	11.87	12.35	10.73	11.29	11.21	11.77	12.25
	6H	11.89	12.36	12.41	12.88	13.37	11.94	12.41	12.46	12.92	13.42
	8H	12.59	13.00	13.10	13.50	14.07	12.65	13.07	13.17	13.56	14.13