

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: P1057911

Luminaire Tested: S122RDRP-S290D927-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057911
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: S122RDRP-S290D927-X4F0-XX-UDD-SVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

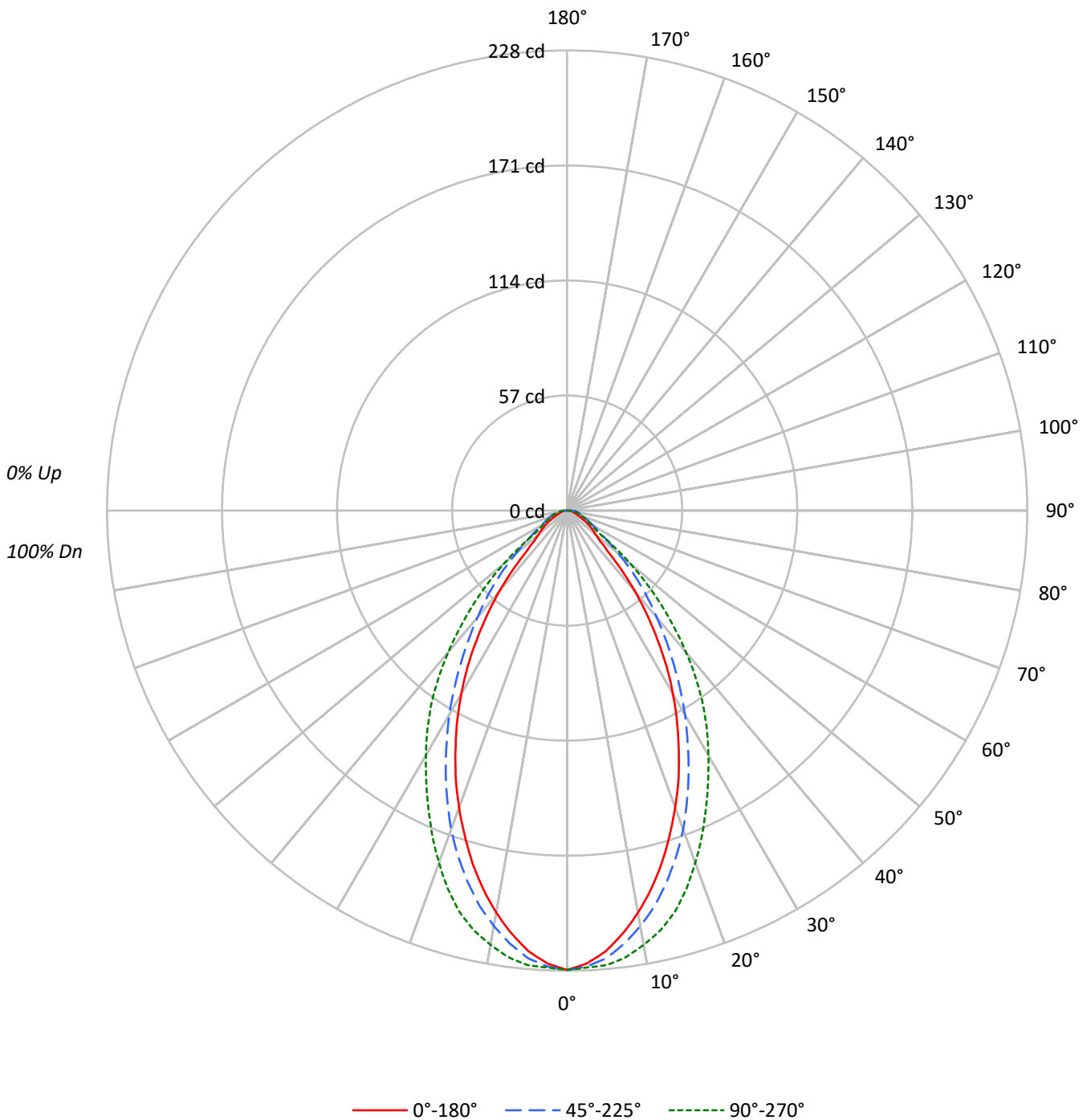
Lumens per Lamp: N/A
Luminaire Lumens: 276.1 lumens
Efficiency: N/A
Efficacy: 22.1 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	102	99	97	98	96	94	94	93	91	89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	83	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	67	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	45	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°	4200	4200	4200
5°	4060	4123	4186
10°	3791	3916	4094
15°	3458	3637	3935
20°	3075	3301	3647
25°	2665	2899	3313
30°	2235	2487	2983
35°	1759	2057	2645
40°	1255	1662	2209
45°	741	1315	1712
50°	534	950	1166
55°	447	685	589
60°	362	550	498
65°	297	489	458
70°	254	475	437
75°	242	485	435
80°	255	574	468
85°	360	932	572

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1712 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.9	7.6
10°-20°	53.6	19.4
20°-30°	66.2	24.0
30°-40°	58.9	21.3
40°-50°	37.6	13.6
50°-60°	18.0	6.5
60°-70°	10.6	3.8
70°-80°	6.8	2.4
80°-90°	3.6	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°	140.7	51.0
0°-40°	199.6	72.3
0°-60°	255.2	92.4
0°-90°	276.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	276.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	228	228	228	228	228	
5°	219	223	223	224	226	20
15°	181	185	190	199	206	50
25°	131	136	142	153	163	60
35°	78	84	91	105	117	49
45°	28	37	50	58	66	24
55°	14	18	21	21	18	13
65°	7	12	11	10	10	7
75°	3	7	7	6	6	4
85°	2	4	4	4	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	227.6	227.6	227.6	227.6	227.6
2.5°	224.6	228.3	226.0	226.0	226.6
5°	219.2	223.2	222.6	223.9	226.0
7.5°	211.4	215.8	216.5	220.2	223.2
10°	202.3	207.0	209.0	214.5	218.5
12.5°	192.1	196.9	200.6	207.3	213.1
15°	181.0	185.4	190.4	199.2	206.0
17.5°	168.8	174.5	179.6	188.7	196.5
20°	156.6	162.0	168.1	176.9	185.7
22.5°	144.1	149.2	155.3	164.4	174.5
25°	130.9	136.0	142.4	152.6	162.7
27.5°	118.0	123.1	129.2	140.4	151.2
30°	104.9	109.9	116.7	128.2	140.0
32.5°	91.7	97.1	103.8	116.4	128.9
35°	78.1	84.2	91.3	105.2	117.4
37.5°	64.9	71.0	79.8	93.4	104.9
40°	52.1	59.2	69.0	81.2	91.7
42.5°	39.6	47.4	59.5	69.3	78.5
45°	28.4	36.9	50.4	58.5	65.6
47.5°	21.6	27.7	41.6	48.0	53.1
50°	18.6	22.3	33.1	37.9	40.6
52.5°	16.2	19.6	26.4	28.8	28.8
55°	13.9	17.9	21.3	20.6	18.3
57.5°	11.8	16.2	17.6	14.9	15.6
60°	9.8	14.9	14.9	13.2	13.5
62.5°	8.1	13.9	12.9	11.5	11.8
65°	6.8	12.2	11.2	10.1	10.5
67.5°	5.4	10.8	9.8	9.1	9.1
70°	4.7	9.8	8.8	8.1	8.1
72.5°	4.1	8.5	7.8	7.1	7.1
75°	3.4	7.4	6.8	6.4	6.1
77.5°	3.0	6.4	6.1	5.4	5.1
80°	2.4	5.4	5.4	5.1	4.4
82.5°	2.0	4.7	4.7	4.4	3.7
85°	1.7	4.1	4.4	3.7	2.7
87.5°	1.4	3.7	3.7	3.0	2.0
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	6.64	7.92	7.01	8.23	8.55	6.46	7.73	6.82	8.05	8.36
	3H	7.87	9.01	8.25	9.34	9.70	8.04	9.17	8.42	9.50	9.87
	4H	8.33	9.39	8.73	9.74	10.12	8.75	9.81	9.16	10.16	10.55
	6H	8.71	9.68	9.12	10.05	10.45	9.41	10.38	9.83	10.75	11.15
	8H	8.86	9.78	9.29	10.18	10.58	9.74	10.66	10.17	11.05	11.46
	12H	9.02	9.90	9.45	10.29	10.72	10.03	10.92	10.47	11.30	11.73
4H	2H	7.20	8.26	7.60	8.61	8.99	7.05	8.11	7.46	8.46	8.85
	3H	8.90	9.77	9.31	10.17	10.58	8.88	9.75	9.29	10.15	10.56
	4H	9.69	10.47	10.12	10.89	11.33	9.75	10.53	10.18	10.95	11.39
	6H	10.33	11.01	10.79	11.45	11.92	10.60	11.28	11.06	11.72	12.19
	8H	10.58	11.21	11.05	11.66	12.13	11.02	11.65	11.49	12.10	12.57
	12H	10.82	11.38	11.31	11.87	12.34	11.42	11.98	11.91	12.46	12.94
8H	4H	10.11	10.74	10.58	11.19	11.66	10.17	10.80	10.64	11.25	11.72
	6H	11.08	11.60	11.59	12.10	12.58	11.26	11.78	11.76	12.27	12.76
	8H	11.57	12.04	12.09	12.55	13.04	11.85	12.32	12.37	12.83	13.32
	12H	12.08	12.49	12.59	12.98	13.56	12.45	12.86	12.96	13.35	13.92
12H	4H	10.18	10.74	10.66	11.22	11.69	10.24	10.80	10.73	11.29	11.76
	6H	11.25	11.72	11.77	12.23	12.72	11.42	11.89	11.94	12.40	12.90
	8H	11.88	12.29	12.40	12.79	13.36	12.13	12.54	12.65	13.04	13.61