

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: P1057913

Luminaire Tested: S122RDRP-S290D927-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057913
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-S290D927-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: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

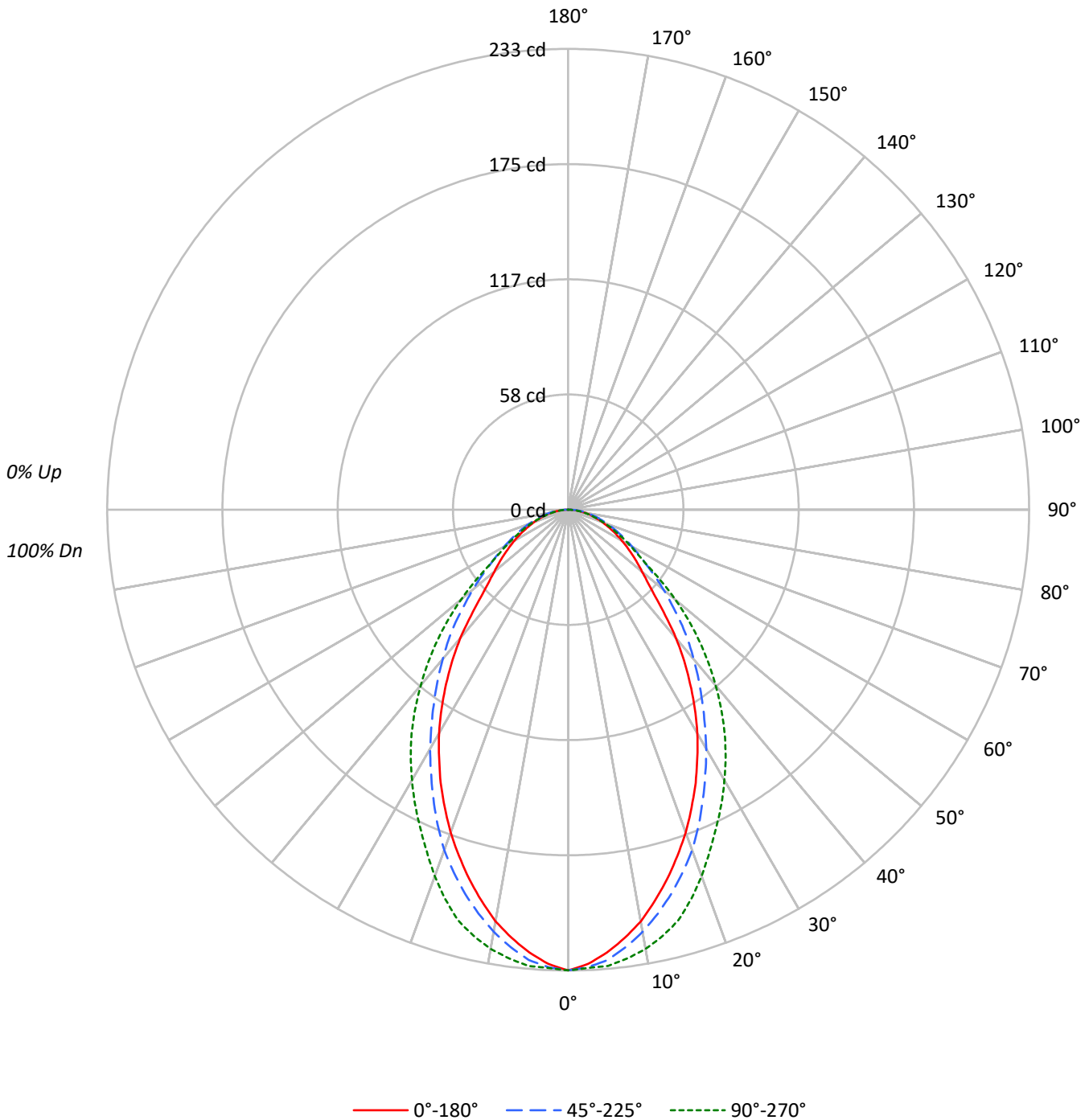
Lumens per Lamp: N/A
Luminaire Lumens: 379.2 lumens
Efficiency: N/A
Efficacy: 30.3 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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

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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	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	87	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°	4298	4298	4298
5°	4164	4232	4288
10°	3959	4060	4225
15°	3693	3842	4107
20°	3411	3597	3870
25°	3103	3282	3606
30°	2781	2974	3364
35°	2422	2658	3106
40°	2043	2377	2792
45°	1623	2098	2443
50°	1398	1806	2027
55°	1271	1544	1554
60°	1159	1373	1321
65°	1061	1240	1166
70°	987	1149	1041
75°	913	1084	913
80°	861	1041	829
85°	868	1080	720

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2443 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.5	5.7
10°-20°	56.8	15.0
20°-30°	74.8	19.7
30°-40°	75.2	19.8
40°-50°	61.0	16.1
50°-60°	42.0	11.1
60°-70°	27.5	7.2
70°-80°	15.3	4.0
80°-90°	5.2	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°	153.1	40.4
0°-40°	228.3	60.2
0°-60°	331.3	87.4
0°-90°	379.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	379.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	233	233	233	233	233	
5°	225	229	228	230	232	21
15°	193	198	201	209	215	54
25°	152	156	161	168	177	70
35°	108	113	118	128	138	67
45°	62	69	80	88	94	49
55°	40	44	48	49	48	35
65°	24	29	28	27	27	24
75°	13	16	15	14	13	14
85°	4	5	5	4	3	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	232.9	232.9	232.9	232.9	232.9
2.5°	229.9	233.9	231.5	231.5	231.9
5°	224.8	229.2	228.5	229.5	231.5
7.5°	218.4	223.1	223.1	226.1	228.8
10°	211.3	216.0	216.7	221.4	225.5
12.5°	202.5	207.2	209.2	215.3	220.7
15°	193.3	198.1	201.1	208.6	215.0
17.5°	183.5	188.3	192.3	200.1	206.5
20°	173.7	178.1	183.2	190.0	197.1
22.5°	162.9	167.7	172.4	178.8	186.9
25°	152.4	156.5	161.2	168.3	177.1
27.5°	141.3	145.7	150.1	158.5	167.7
30°	130.5	134.9	139.6	148.4	157.9
32.5°	119.0	123.7	128.4	138.2	148.1
35°	107.5	112.6	118.0	128.4	137.9
37.5°	96.3	101.7	108.2	119.0	127.1
40°	84.8	90.6	98.7	108.2	115.9
42.5°	72.7	79.8	89.6	97.7	104.8
45°	62.2	69.3	80.4	87.5	93.6
47.5°	54.4	60.2	71.0	77.1	82.1
50°	48.7	53.1	62.9	67.3	70.6
52.5°	43.9	48.3	55.1	58.1	59.2
55°	39.5	43.9	48.0	49.0	48.3
57.5°	35.2	39.9	42.3	41.2	41.2
60°	31.4	36.5	37.2	35.8	35.8
62.5°	27.7	32.8	32.8	31.1	31.1
65°	24.3	29.1	28.4	27.0	26.7
67.5°	21.3	25.7	24.7	23.3	23.0
70°	18.3	22.3	21.3	19.6	19.3
72.5°	15.5	19.3	17.9	16.6	15.9
75°	12.8	15.9	15.2	13.5	12.8
77.5°	10.5	12.8	12.2	10.8	10.1
80°	8.1	10.1	9.8	8.5	7.8
82.5°	6.1	7.8	7.4	6.4	5.4
85°	4.1	5.4	5.1	4.4	3.4
87.5°	2.0	3.7	3.4	3.0	1.7
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	11.80	13.24	12.16	13.55	13.87	12.15	13.59	12.51	13.90	14.22
	3H	13.34	14.63	13.72	14.96	15.32	13.50	14.79	13.88	15.12	15.48
	4H	13.91	15.12	14.31	15.47	15.85	13.98	15.19	14.38	15.54	15.92
	6H	14.34	15.46	14.75	15.82	16.22	14.33	15.45	14.75	15.82	16.21
	8H	14.50	15.56	14.92	15.95	16.35	14.45	15.51	14.88	15.90	16.30
	12H	14.61	15.63	15.04	16.01	16.44	14.53	15.54	14.96	15.92	16.35
4H	2H	12.38	13.59	12.78	13.94	14.32	12.66	13.87	13.07	14.22	14.60
	3H	14.21	15.21	14.62	15.61	16.01	14.24	15.24	14.65	15.64	16.04
	4H	14.95	15.85	15.39	16.27	16.71	14.84	15.74	15.28	16.16	16.60
	6H	15.54	16.32	15.99	16.76	17.22	15.33	16.11	15.78	16.55	17.01
	8H	15.75	16.48	16.21	16.92	17.39	15.49	16.22	15.95	16.67	17.13
	12H	15.92	16.57	16.40	17.05	17.52	15.61	16.26	16.09	16.74	17.22
8H	4H	15.24	15.97	15.70	16.41	16.88	15.14	15.88	15.61	16.32	16.79
	6H	15.99	16.59	16.49	17.09	17.57	15.76	16.37	16.26	16.86	17.34
	8H	16.31	16.86	16.83	17.37	17.86	16.01	16.55	16.53	17.07	17.56
	12H	16.60	17.08	17.11	17.57	18.14	16.22	16.70	16.74	17.20	17.76
12H	4H	15.26	15.91	15.74	16.39	16.86	15.18	15.83	15.66	16.31	16.78
	6H	16.05	16.59	16.57	17.10	17.59	15.84	16.38	16.36	16.89	17.38
	8H	16.45	16.93	16.96	17.42	17.99	16.16	16.64	16.67	17.13	17.70