

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: P1057914

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057914
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55)
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-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

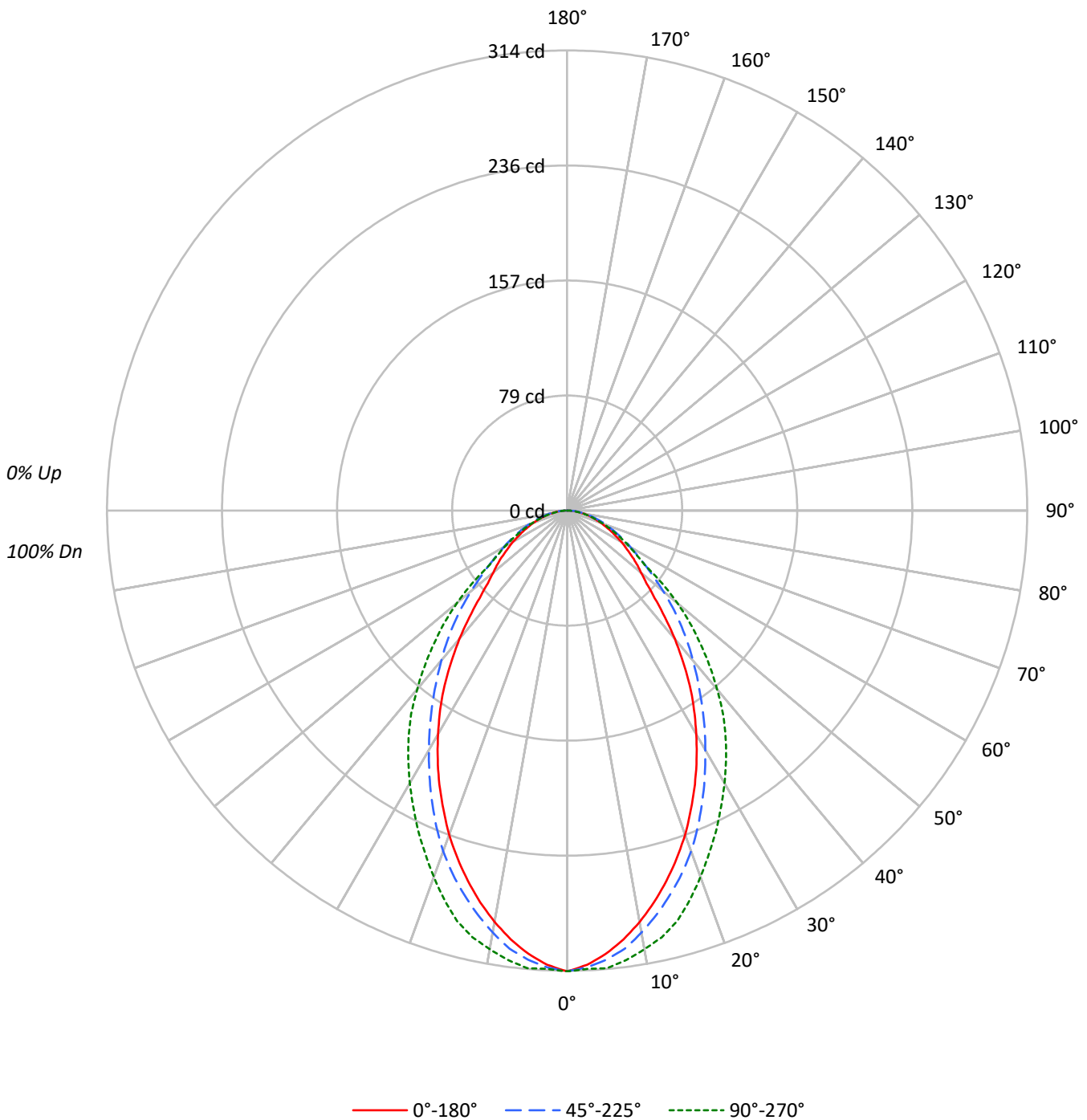
Lumens per Lamp: N/A
Luminaire Lumens: 512.5 lumens
Efficiency: N/A
Efficacy: 41.0 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59
5	81	70	62	56	80	69	62	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	46	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	46	39	35	45	39	35	44	38	34	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5801	5801	5801
5°	5624	5698	5805
10°	5340	5479	5694
15°	4997	5185	5540
20°	4621	4858	5223
25°	4198	4447	4901
30°	3752	4019	4575
35°	3289	3602	4248
40°	2753	3216	3835
45°	2205	2850	3353
50°	1892	2454	2813
55°	1728	2088	2078
60°	1572	1845	1808
65°	1432	1655	1581
70°	1311	1516	1403
75°	1226	1397	1226
80°	1148	1296	1073
85°	1143	1355	932

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3353 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.0	5.7
10°-20°	76.8	15.0
20°-30°	101.3	19.8
30°-40°	102.0	19.9
40°-50°	83.1	16.2
50°-60°	56.6	11.0
60°-70°	36.8	7.2
70°-80°	20.2	3.9
80°-90°	6.6	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°	207.2	40.4
0°-40°	309.2	60.3
0°-60°	448.9	87.6
0°-90°	512.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	512.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	314	314	314	314	314	
5°	304	309	308	310	313	28
15°	262	268	271	283	290	73
25°	206	213	218	228	241	95
35°	146	154	160	174	189	91
45°	84	95	109	119	128	67
55°	54	59	65	65	65	48
65°	33	39	38	36	36	33
75°	17	21	20	18	17	18
85°	5	7	6	5	4	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	314.4	314.4	314.4	314.4	314.4
2.5°	310.3	315.4	312.0	312.3	313.0
5°	303.6	309.3	307.6	310.3	313.4
7.5°	295.1	300.9	301.5	305.6	309.3
10°	285.0	291.4	292.4	298.5	303.9
12.5°	273.8	280.9	282.3	291.1	298.2
15°	261.6	268.4	271.4	282.6	290.0
17.5°	248.8	255.2	260.0	270.1	278.5
20°	235.3	241.4	247.4	256.6	266.0
22.5°	220.7	227.5	233.2	242.4	253.2
25°	206.2	213.0	218.4	228.2	240.7
27.5°	191.3	198.1	203.5	214.0	227.5
30°	176.1	183.2	188.6	200.5	214.7
32.5°	161.2	168.3	174.4	186.9	201.8
35°	146.0	153.5	159.9	173.8	188.6
37.5°	129.8	138.3	146.4	160.2	174.8
40°	114.3	123.7	133.5	146.4	159.2
42.5°	98.7	109.2	121.4	132.2	144.0
45°	84.5	95.0	109.2	118.7	128.5
47.5°	73.4	82.1	97.4	105.1	113.9
50°	65.9	72.0	85.5	91.6	98.0
52.5°	59.8	64.9	74.4	78.4	81.8
55°	53.7	59.2	64.9	65.2	64.6
57.5°	47.7	53.7	56.8	54.4	55.8
60°	42.6	48.7	50.0	47.7	49.0
62.5°	37.2	43.9	43.9	41.6	42.3
65°	32.8	38.9	37.9	35.8	36.2
67.5°	28.4	34.5	32.8	30.8	30.8
70°	24.3	30.1	28.1	26.0	26.0
72.5°	20.6	25.4	24.0	21.6	21.3
75°	17.2	21.3	19.6	17.6	17.2
77.5°	13.9	17.2	15.9	14.2	13.5
80°	10.8	13.9	12.2	10.8	10.1
82.5°	8.1	10.5	9.1	7.8	7.1
85°	5.4	7.1	6.4	5.1	4.4
87.5°	2.7	4.7	4.1	3.4	2.7
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	12.82	14.26	13.19	14.57	14.89	13.07	14.51	13.44	14.82	15.14
	3H	14.35	15.64	14.73	15.97	16.33	14.43	15.72	14.81	16.05	16.41
	4H	14.91	16.12	15.32	16.47	16.85	14.91	16.12	15.31	16.47	16.85
	6H	15.34	16.45	15.75	16.82	17.21	15.26	16.37	15.67	16.74	17.13
	8H	15.49	16.55	15.92	16.94	17.34	15.37	16.42	15.80	16.81	17.22
	12H	15.60	16.62	16.04	17.00	17.43	15.44	16.45	15.87	16.83	17.26
4H	2H	13.40	14.60	13.80	14.95	15.33	13.60	14.80	14.00	15.15	15.53
	3H	15.20	16.20	15.61	16.60	17.00	15.17	16.17	15.58	16.57	16.97
	4H	15.94	16.84	16.38	17.26	17.70	15.77	16.66	16.20	17.08	17.52
	6H	16.53	17.31	16.99	17.75	18.22	16.23	17.01	16.69	17.46	17.92
	8H	16.74	17.47	17.21	17.92	18.38	16.38	17.11	16.85	17.56	18.03
	12H	16.91	17.56	17.39	18.04	18.51	16.49	17.14	16.98	17.62	18.09
8H	4H	16.21	16.94	16.67	17.38	17.85	16.06	16.79	16.52	17.23	17.70
	6H	16.97	17.57	17.46	18.06	18.54	16.65	17.25	17.14	17.74	18.22
	8H	17.29	17.83	17.81	18.34	18.83	16.87	17.41	17.39	17.92	18.41
	12H	17.57	18.05	18.08	18.54	19.11	17.05	17.53	17.56	18.02	18.59
12H	4H	16.22	16.87	16.71	17.35	17.82	16.09	16.74	16.57	17.22	17.69
	6H	17.01	17.55	17.53	18.06	18.55	16.71	17.25	17.23	17.77	18.26
	8H	17.41	17.89	17.92	18.38	18.95	17.00	17.48	17.51	17.97	18.54