

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: P1057878

Luminaire Tested: S122RDRP-S290D830-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057878
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-S290D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

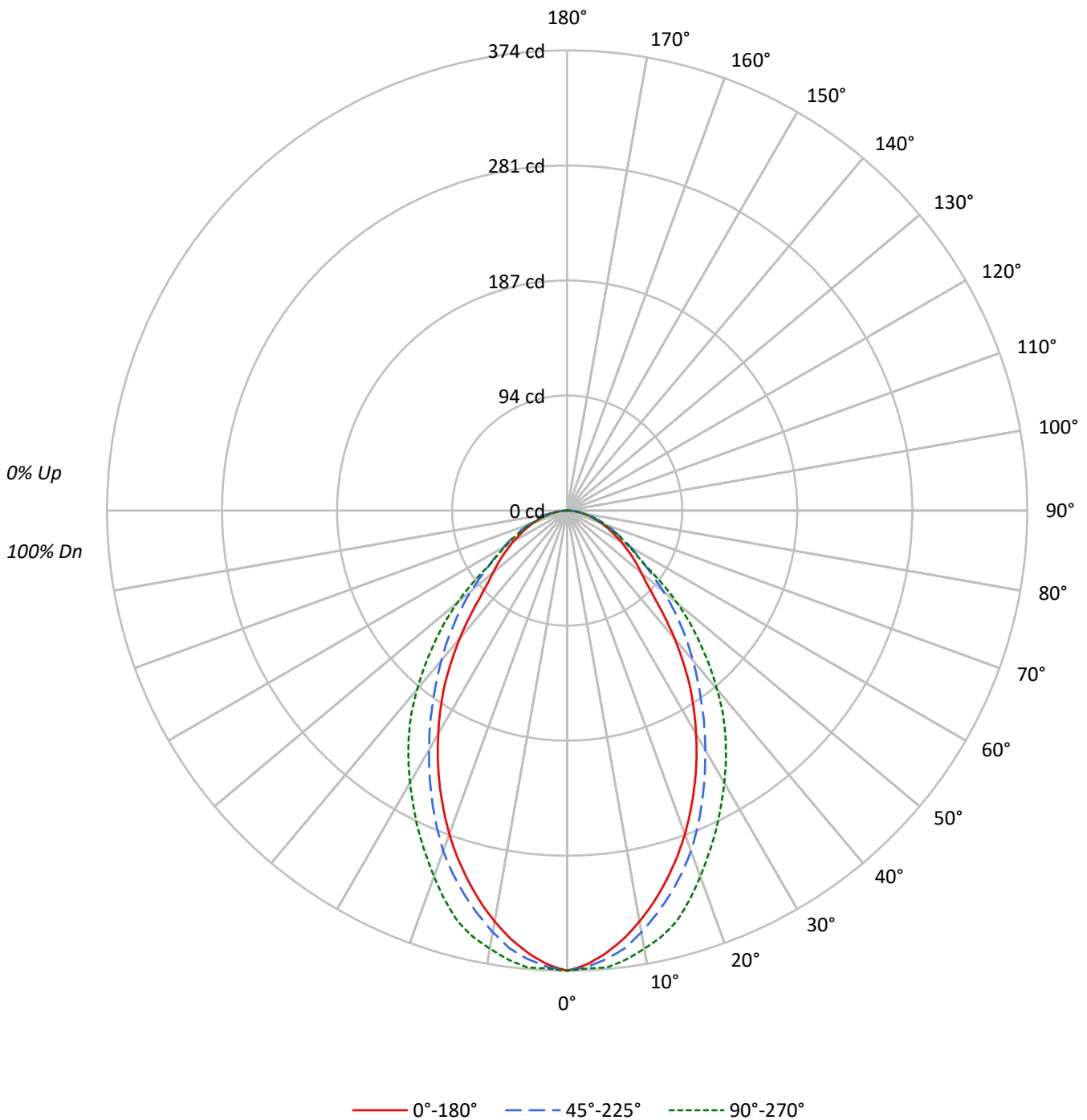
Lumens per Lamp: N/A
Luminaire Lumens: 609.8 lumens
Efficiency: N/A
Efficacy: 48.8 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (Ain): 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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CATALOG NUMBER: S122RDRP-S290D830-X4F0-XX-UDD-WVL-W

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	100	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	40	35	46	39	35	45	39	35	44	38	34	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6901	6901	6901
5°	6690	6779	6905
10°	6354	6519	6775
15°	5947	6170	6593
20°	5496	5781	6215
25°	4994	5290	5831
30°	4464	4781	5442
35°	3915	4285	5055
40°	3274	3828	4562
45°	2625	3390	3987
50°	2251	2922	3347
55°	2056	2484	2471
60°	1871	2196	2152
65°	1703	1965	1877
70°	1565	1802	1672
75°	1462	1661	1462
80°	1371	1541	1286
85°	1355	1609	1101

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3987 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.5	5.7
10°-20°	91.4	15.0
20°-30°	120.6	19.8
30°-40°	121.4	19.9
40°-50°	98.8	16.2
50°-60°	67.4	11.0
60°-70°	43.7	7.2
70°-80°	24.1	3.9
80°-90°	7.8	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°	246.5	40.4
0°-40°	367.9	60.3
0°-60°	534.1	87.6
0°-90°	609.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	609.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	374	374	374	374	374	
5°	361	368	366	369	373	34
15°	311	319	323	336	345	87
25°	245	253	260	272	286	112
35°	174	183	190	207	224	108
45°	101	113	130	141	153	79
55°	64	70	77	78	77	57
65°	39	46	45	43	43	39
75°	20	25	23	21	20	22
85°	6	8	8	6	5	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	374.0	374.0	374.0	374.0	374.0
2.5°	369.2	375.3	371.2	371.6	372.4
5°	361.2	368.0	366.0	369.2	372.8
7.5°	351.1	358.0	358.8	363.6	368.0
10°	339.1	346.7	347.9	355.1	361.6
12.5°	325.8	334.2	335.8	346.3	354.7
15°	311.3	319.3	323.0	336.2	345.1
17.5°	296.0	303.7	309.3	321.4	331.4
20°	279.9	287.2	294.4	305.3	316.5
22.5°	262.6	270.7	277.5	288.4	301.2
25°	245.3	253.4	259.8	271.5	286.4
27.5°	227.6	235.7	242.1	254.6	270.7
30°	209.5	218.0	224.4	238.5	255.4
32.5°	191.8	200.3	207.5	222.4	240.1
35°	173.8	182.6	190.2	206.7	224.4
37.5°	154.4	164.5	174.2	190.6	207.9
40°	135.9	147.2	158.9	174.2	189.4
42.5°	117.4	129.9	144.4	157.3	171.3
45°	100.6	113.0	129.9	141.2	152.8
47.5°	87.3	97.7	115.8	125.1	135.5
50°	78.4	85.7	101.8	109.0	116.6
52.5°	71.2	77.2	88.5	93.3	97.3
55°	63.9	70.4	77.2	77.6	76.8
57.5°	56.7	63.9	67.6	64.8	66.4
60°	50.7	57.9	59.5	56.7	58.3
62.5°	44.2	52.3	52.3	49.5	50.3
65°	39.0	46.3	45.0	42.6	43.0
67.5°	33.8	41.0	39.0	36.6	36.6
70°	29.0	35.8	33.4	31.0	31.0
72.5°	24.5	30.2	28.6	25.7	25.3
75°	20.5	25.3	23.3	20.9	20.5
77.5°	16.5	20.5	18.9	16.9	16.1
80°	12.9	16.5	14.5	12.9	12.1
82.5°	9.7	12.5	10.9	9.3	8.4
85°	6.4	8.4	7.6	6.0	5.2
87.5°	3.2	5.6	4.8	4.0	3.2
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	13.43	14.86	13.79	15.18	15.49	13.68	15.12	14.05	15.43	15.75
	3H	14.96	16.24	15.34	16.57	16.94	15.04	16.33	15.42	16.66	17.02
	4H	15.52	16.72	15.92	17.07	17.45	15.52	16.72	15.92	17.07	17.45
	6H	15.94	17.06	16.36	17.42	17.82	15.87	16.98	16.28	17.35	17.74
	8H	16.10	17.15	16.53	17.54	17.95	15.98	17.03	16.40	17.42	17.83
	12H	16.21	17.22	16.64	17.60	18.03	16.04	17.06	16.48	17.44	17.87
4H	2H	14.00	15.20	14.40	15.55	15.93	14.20	15.41	14.60	15.76	16.14
	3H	15.81	16.80	16.22	17.20	17.61	15.78	16.78	16.19	17.18	17.58
	4H	16.55	17.44	16.98	17.86	18.30	16.37	17.27	16.80	17.69	18.13
	6H	17.13	17.91	17.59	18.36	18.82	16.84	17.62	17.30	18.07	18.53
	8H	17.35	18.07	17.81	18.52	18.99	16.99	17.72	17.46	18.17	18.63
	12H	17.51	18.16	17.99	18.64	19.11	17.10	17.75	17.58	18.23	18.70
8H	4H	16.81	17.54	17.28	17.99	18.45	16.66	17.39	17.13	17.84	18.30
	6H	17.57	18.17	18.07	18.66	19.14	17.25	17.86	17.75	18.35	18.83
	8H	17.90	18.44	18.41	18.95	19.44	17.48	18.02	17.99	18.53	19.02
	12H	18.18	18.65	18.69	19.15	19.71	17.66	18.14	18.17	18.63	19.20
12H	4H	16.83	17.47	17.31	17.95	18.43	16.70	17.34	17.18	17.82	18.30
	6H	17.61	18.15	18.13	18.67	19.16	17.32	17.86	17.84	18.37	18.86
	8H	18.01	18.49	18.52	18.98	19.55	17.61	18.09	18.12	18.58	19.15