

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058592

Luminaire Tested: S122RDR-H865D950-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058592
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H865D950-X4F0-XX-UDD-BVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

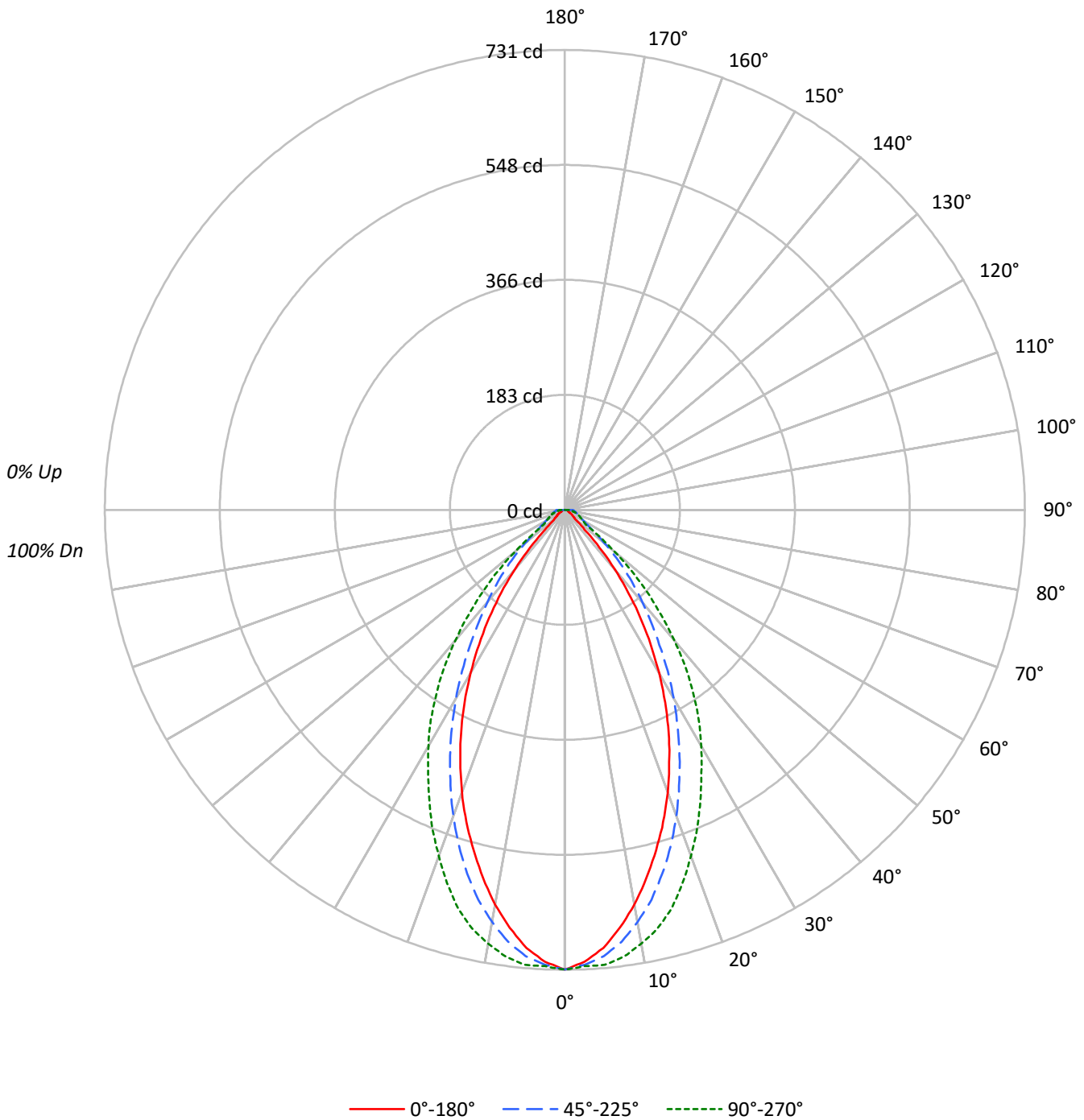
Lumens per Lamp: N/A
Luminaire Lumens: 795.2 lumens
Efficiency: N/A
Efficacy: 25.5 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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

TEST NUMBER: P1058592

CATALOG NUMBER: S122RDR-H865D950-X4F0-XX-UDD-BVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1058592

CATALOG NUMBER: S122RDR-H865D950-X4F0-XX-UDD-BVL-W

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	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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90				
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81				
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74				
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67				
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61				
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56				
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52				
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48				
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45				
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13481	13481	13481
5°	12949	13186	13448
10°	11937	12464	13120
15°	10698	11433	12528
20°	9388	10170	11501
25°	7949	8783	10378
30°	6377	7372	9241
35°	4715	5900	8006
40°	2956	4618	6504
45°	1159	3479	4820
50°	571	2348	2954
55°	450	1541	1316
60°	347	1251	1207
65°	253	1175	1175
70°	313	1198	1198
75°	335	1333	1248
80°	499	1743	1371
85°	995	2964	1990

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 5457 cd/sqm



TEST NUMBER: P1058592

CATALOG NUMBER: S122RDR-H865D950-X4F0-XX-UDD-BVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.7	8.4
10°-20°	168.7	21.2
20°-30°	201.8	25.4
30°-40°	169.9	21.4
40°-50°	96.7	12.2
50°-60°	38.1	4.8
60°-70°	24.0	3.0
70°-80°	17.8	2.2
80°-90°	11.4	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°	437.3	55.0
0°-40°	607.1	76.3
0°-60°	742.0	93.3
0°-90°	795.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	795.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	731	731	731	731	731	
5°	699	714	712	720	726	65
15°	560	580	598	634	656	156
25°	390	408	431	476	510	178
35°	209	228	262	318	355	130
45°	44	78	133	167	185	42
55°	14	30	48	49	41	13
65°	6	27	27	26	27	6
75°	5	19	19	18	18	5
85°	5	13	14	13	9	4
90°	0	0	0	0	0	



TEST NUMBER: P1058592

CATALOG NUMBER: S122RDR-H865D950-X4F0-XX-UDD-BVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	730.6	730.6	730.6	730.6	730.6
2.5°	718.9	731.8	723.6	724.8	726.0
5°	699.1	714.3	711.9	720.1	726.0
7.5°	669.8	686.2	692.1	706.1	716.6
10°	637.1	655.8	665.2	687.4	700.2
12.5°	599.7	620.7	634.8	662.8	681.5
15°	560.0	579.8	598.5	633.6	655.8
17.5°	520.2	540.1	560.0	598.5	621.9
20°	478.1	496.8	517.9	558.8	585.7
22.5°	433.7	453.6	474.6	516.7	549.4
25°	390.4	408.0	431.4	475.8	509.7
27.5°	344.9	362.4	388.1	433.7	469.9
30°	299.3	316.8	346.0	392.8	433.7
32.5°	253.7	272.4	303.9	355.4	396.3
35°	209.3	228.0	261.9	318.0	355.4
37.5°	166.0	187.0	224.5	279.4	314.5
40°	122.7	147.3	191.7	240.8	270.0
42.5°	81.8	112.2	161.3	202.2	226.8
45°	44.4	78.3	133.3	167.2	184.7
47.5°	24.5	50.3	106.4	133.3	143.8
50°	19.9	35.1	81.8	101.7	102.9
52.5°	16.4	31.6	60.8	72.5	66.6
55°	14.0	30.4	47.9	49.1	40.9
57.5°	11.7	29.2	39.7	35.1	35.1
60°	9.4	29.2	33.9	31.6	32.7
62.5°	7.0	29.2	30.4	28.1	29.2
65°	5.8	26.9	26.9	25.7	26.9
67.5°	5.8	24.5	24.5	23.4	24.5
70°	5.8	23.4	22.2	22.2	22.2
72.5°	4.7	21.0	21.0	19.9	19.9
75°	4.7	18.7	18.7	17.5	17.5
77.5°	4.7	17.5	17.5	16.4	15.2
80°	4.7	15.2	16.4	15.2	12.9
82.5°	4.7	14.0	15.2	14.0	10.5
85°	4.7	12.9	14.0	12.9	9.4
87.5°	3.5	12.9	12.9	10.5	7.0
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058592
 CATALOG NUMBER: S122RDR-H865D950-X4F0-XX-UDD-BVL-W

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	6.72	7.95	7.09	8.26	8.57	8.76	9.98	9.12	10.29	10.61
	3H	8.26	9.35	8.65	9.68	10.05	10.73	11.81	11.11	12.14	12.51
	4H	8.82	9.83	9.23	10.19	10.57	11.64	12.65	12.05	13.00	13.39
	6H	9.38	10.31	9.80	10.68	11.08	12.53	13.46	12.94	13.83	14.22
	8H	9.68	10.56	10.11	10.95	11.36	12.93	13.81	13.36	14.20	14.61
	12H	10.04	10.88	10.47	11.27	11.70	13.37	14.22	13.81	14.60	15.03
4H	2H	7.91	8.92	8.32	9.28	9.66	9.38	10.39	9.78	10.74	11.13
	3H	10.11	10.94	10.52	11.35	11.75	11.62	12.45	12.03	12.86	13.26
	4H	11.17	11.91	11.60	12.33	12.78	12.69	13.44	13.12	13.86	14.30
	6H	12.06	12.71	12.53	13.16	13.62	13.80	14.45	14.27	14.90	15.37
	8H	12.45	13.05	12.92	13.50	13.97	14.32	14.93	14.79	15.38	15.85
	12H	12.87	13.41	13.36	13.89	14.37	14.90	15.44	15.39	15.92	16.40
8H	4H	11.97	12.57	12.44	13.02	13.49	13.18	13.79	13.65	14.23	14.71
	6H	13.35	13.85	13.85	14.34	14.83	14.58	15.08	15.08	15.57	16.06
	8H	14.07	14.52	14.59	15.03	15.52	15.32	15.76	15.84	16.28	16.77
	12H	14.82	15.22	15.34	15.71	16.29	16.15	16.55	16.67	17.04	17.62
12H	4H	12.13	12.66	12.62	13.15	13.62	13.28	13.82	13.77	14.30	14.77
	6H	13.68	14.13	14.21	14.64	15.14	14.80	15.24	15.32	15.76	16.25
	8H	14.60	14.99	15.11	15.49	16.06	15.68	16.08	16.20	16.57	17.14