

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: P1058197

Luminaire Tested: S122RDR-H1005D830-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058197
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H1005D830-X4F0-XX-UDD-SVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

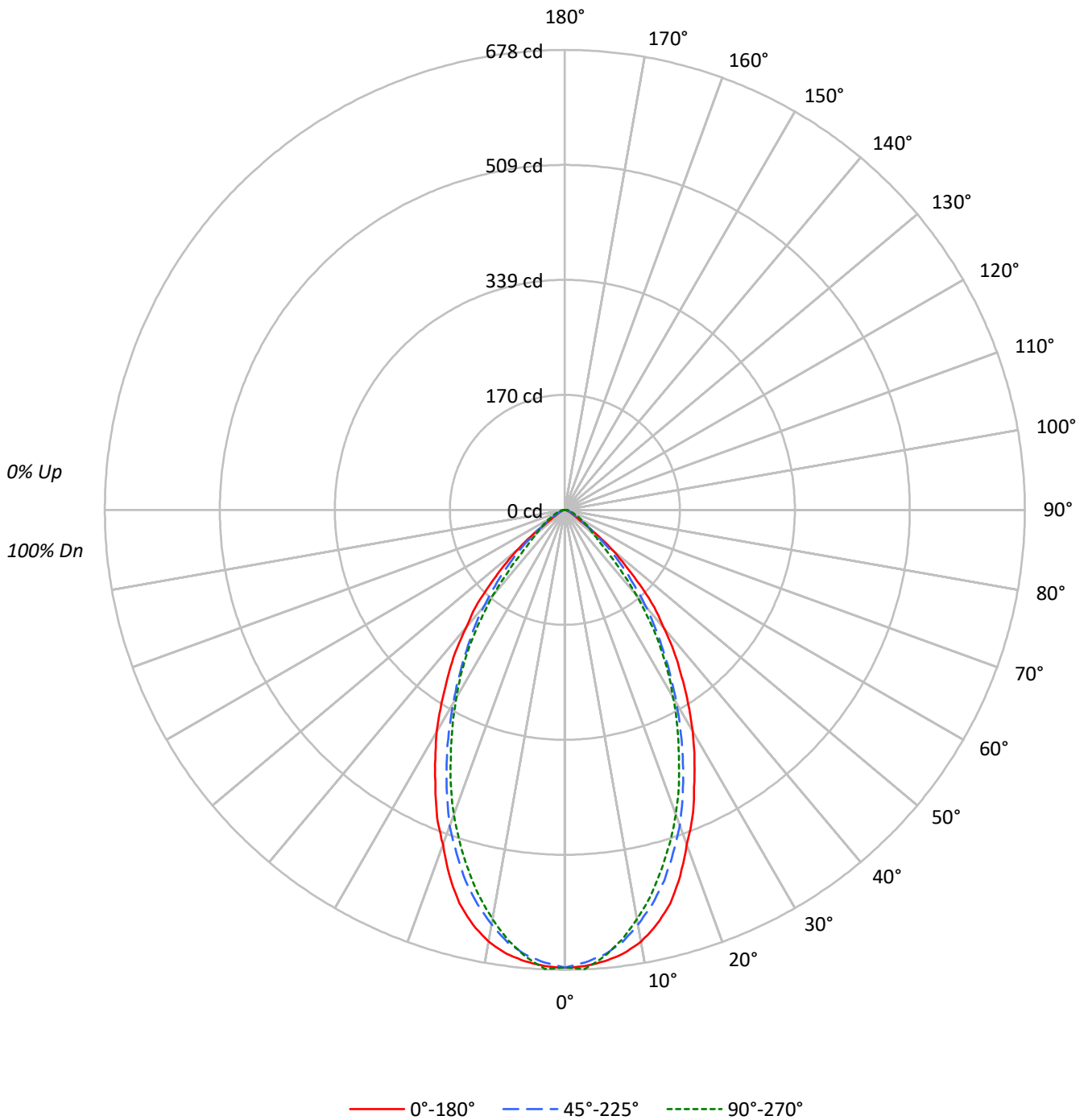
Lumens per Lamp: N/A
Luminaire Lumens: 725.7 lumens
Efficiency: N/A
Efficacy: 19.9 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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

TEST NUMBER: P1058197

CATALOG NUMBER: S122RDR-H1005D830-X4F0-XX-UDD-SVL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1058197

CATALOG NUMBER: S122RDR-H1005D830-X4F0-XX-UDD-SVL-B

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	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92				
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84				
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	76				
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70				
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64				
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59				
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54				
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50				
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47				
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12452	12452	12452
5°	12375	12201	12249
10°	12114	11634	11484
15°	11475	10807	10499
20°	10315	9734	9390
25°	9186	8392	8089
30°	8035	7004	6801
35°	6767	5674	5492
40°	5451	4478	3958
45°	4076	3233	2354
50°	2552	2087	1547
55°	865	1126	1258
60°	498	698	993
65°	354	472	764
70°	291	361	583
75°	192	285	478
80°	138	287	425
85°	0	0	275

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4076 cd/sqm



TEST NUMBER: P1058197

CATALOG NUMBER: S122RDR-H1005D830-X4F0-XX-UDD-SVL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.2	8.6
10°-20°	159.2	21.9
20°-30°	191.7	26.4
30°-40°	163.8	22.6
40°-50°	96.0	13.2
50°-60°	34.7	4.8
60°-70°	12.3	1.7
70°-80°	4.9	0.7
80°-90°	0.9	0.1
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°	413.1	56.9
0°-40°	576.9	79.5
0°-60°	707.6	97.5
0°-90°	725.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	725.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	675	675	675	675	675	
5°	668	669	659	661	661	63
15°	601	591	566	555	550	167
25°	451	432	412	405	397	207
35°	300	278	252	249	244	188
45°	156	140	124	104	90	121
55°	27	38	35	36	39	33
65°	8	9	11	15	18	9
75°	3	4	4	5	7	3
85°	0	0	0	1	1	1
90°	0	0	0	0	0	



TEST NUMBER: P1058197

CATALOG NUMBER: S122RDR-H1005D830-X4F0-XX-UDD-SVL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	674.8	674.8	674.8	674.8	674.8
2.5°	673.5	674.8	668.1	674.8	677.5
5°	668.1	669.4	658.7	661.3	661.3
7.5°	660.0	658.7	643.8	641.1	639.8
10°	646.5	642.5	620.9	616.9	612.9
12.5°	626.3	618.2	595.3	588.6	583.2
15°	600.7	591.3	565.7	554.9	549.6
17.5°	565.7	554.9	530.7	519.9	514.5
20°	525.3	514.5	495.7	483.6	478.2
22.5°	491.6	474.1	453.9	445.8	439.1
25°	451.2	432.4	412.2	405.4	397.3
27.5°	413.5	390.6	370.4	365.0	358.3
30°	377.1	352.9	328.7	328.7	319.2
32.5°	338.1	315.2	289.6	288.2	282.9
35°	300.4	277.5	251.9	249.2	243.8
37.5°	265.3	242.4	218.2	210.1	203.4
40°	226.3	206.1	185.9	172.4	164.3
42.5°	195.3	172.4	152.2	136.0	125.3
45°	156.2	140.1	123.9	103.7	90.2
47.5°	121.2	110.4	97.0	74.1	67.3
50°	88.9	83.5	72.7	55.2	53.9
52.5°	56.6	59.3	52.5	43.1	47.1
55°	26.9	37.7	35.0	36.4	39.1
57.5°	17.5	18.9	25.6	29.6	32.3
60°	13.5	13.5	18.9	24.2	26.9
62.5°	10.8	10.8	14.8	20.2	21.6
65°	8.1	9.4	10.8	14.8	17.5
67.5°	6.7	6.7	8.1	12.1	13.5
70°	5.4	5.4	6.7	9.4	10.8
72.5°	4.0	4.0	5.4	8.1	8.1
75°	2.7	4.0	4.0	5.4	6.7
77.5°	2.7	2.7	2.7	4.0	5.4
80°	1.3	1.3	2.7	2.7	4.0
82.5°	1.3	1.3	1.3	1.3	2.7
85°	0.0	0.0	0.0	1.3	1.3
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058197
 CATALOG NUMBER: S122RDR-H1005D830-X4F0-XX-UDD-SVL-B

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	4.66	5.82	5.02	6.13	6.45	8.03	9.20	8.40	9.51	9.82
	3H	5.17	6.20	5.55	6.53	6.89	8.77	9.79	9.15	10.12	10.49
	4H	5.30	6.25	5.71	6.60	6.99	8.98	9.93	9.39	10.28	10.67
	6H	5.38	6.24	5.79	6.62	7.01	9.13	10.00	9.55	10.37	10.77
	8H	5.38	6.20	5.81	6.59	6.99	9.16	9.98	9.60	10.37	10.78
	12H	5.34	6.12	5.78	6.51	6.94	9.16	9.94	9.59	10.32	10.76
4H	2H	4.97	5.91	5.37	6.27	6.65	8.00	8.95	8.41	9.30	9.69
	3H	5.62	6.39	6.04	6.80	7.20	8.88	9.65	9.29	10.05	10.46
	4H	5.86	6.54	6.29	6.96	7.41	9.16	9.84	9.60	10.27	10.71
	6H	5.97	6.56	6.44	7.01	7.48	9.38	9.97	9.85	10.42	10.89
	8H	5.98	6.53	6.45	6.98	7.45	9.43	9.97	9.90	10.42	10.90
	12H	5.95	6.42	6.44	6.91	7.39	9.45	9.92	9.93	10.41	10.89
8H	4H	5.96	6.51	6.43	6.96	7.43	9.09	9.64	9.56	10.09	10.56
	6H	6.12	6.56	6.63	7.06	7.55	9.35	9.79	9.86	10.29	10.77
	8H	6.16	6.56	6.69	7.08	7.57	9.41	9.80	9.94	10.32	10.82
	12H	6.14	6.48	6.65	6.98	7.56	9.46	9.81	9.98	10.31	10.88
12H	4H	5.95	6.42	6.44	6.91	7.39	9.04	9.52	9.53	10.01	10.48
	6H	6.12	6.52	6.65	7.03	7.53	9.30	9.69	9.83	10.21	10.71
	8H	6.18	6.53	6.70	7.03	7.60	9.38	9.73	9.90	10.23	10.80