

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: P1058357

Luminaire Tested: S122RDR-H485D830-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058357
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H485D830-X4F0-XX-UDD-BVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

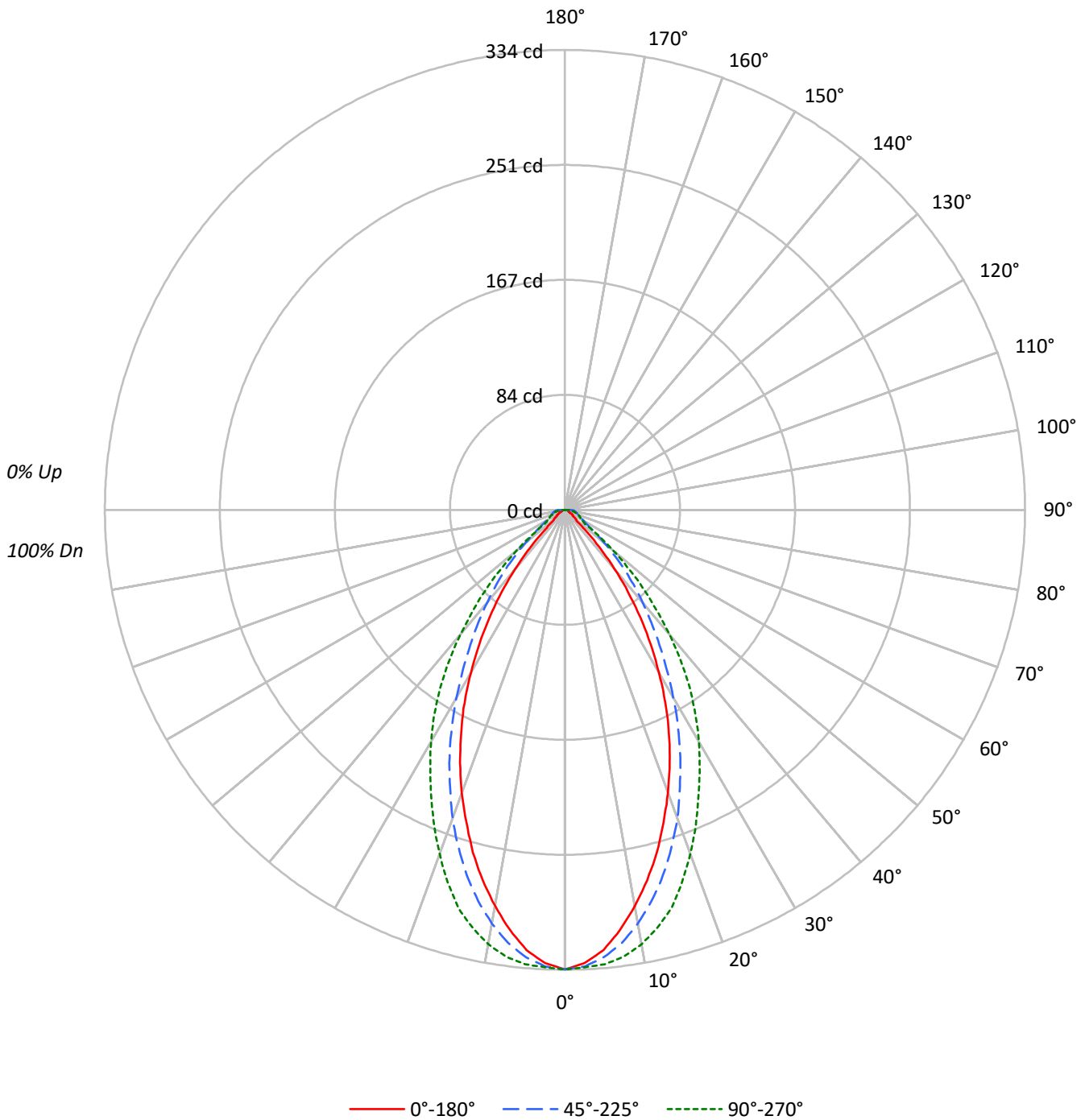
Lumens per Lamp: N/A
Luminaire Lumens: 359.8 lumens
Efficiency: N/A
Efficacy: 20.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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: P1058357

CATALOG NUMBER: S122RDR-H485D830-X4F0-XX-UDD-BVL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1058357

CATALOG NUMBER: S122RDR-H485D830-X4F0-XX-UDD-BVL-S

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				100
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90				90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81				81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74				74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67				67
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61				61
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57				57
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52				52
8	73	62	55	51	72	62	55	51	60	55	50	59	54	50	58	54	50	48				48
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45				45
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42				42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6158	6158	6158
5°	5944	6040	6135
10°	5475	5715	6002
15°	4923	5252	5716
20°	4295	4683	5223
25°	3632	4035	4673
30°	2902	3352	4142
35°	2147	2694	3557
40°	1356	2110	2833
45°	535	1584	2085
50°	276	1065	1286
55°	225	698	576
60°	166	565	520
65°	140	528	528
70°	140	550	518
75°	185	642	549
80°	276	818	616
85°	402	1355	805

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 2707 cd/sqm



TEST NUMBER: P1058357

CATALOG NUMBER: S122RDR-H485D830-X4F0-XX-UDD-BVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.5	8.5
10°-20°	77.1	21.4
20°-30°	91.6	25.5
30°-40°	76.2	21.2
40°-50°	42.6	11.8
50°-60°	17.2	4.8
60°-70°	11.0	3.1
70°-80°	8.3	2.3
80°-90°	5.3	1.5
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°	199.3	55.4
0°-40°	275.5	76.6
0°-60°	335.2	93.2
0°-90°	359.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	359.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	334	334	334	334	334	
5°	321	327	326	329	331	30
15°	258	265	275	289	299	72
25°	178	185	198	214	230	81
35°	95	104	120	139	158	59
45°	20	34	61	71	80	19
55°	7	15	22	21	18	6
65°	3	13	12	12	12	3
75°	3	9	9	8	8	3
85°	2	6	6	6	4	2
90°	0	0	0	0	0	

TEST NUMBER: P1058357

CATALOG NUMBER: S122RDR-H485D830-X4F0-XX-UDD-BVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	333.7	333.7	333.7	333.7	333.7
2.5°	329.3	334.4	331.8	331.8	332.5
5°	320.9	326.7	326.1	328.6	331.2
7.5°	307.5	313.9	317.1	322.9	327.3
10°	292.2	299.2	305.0	313.9	320.3
12.5°	275.6	282.6	290.9	302.4	310.7
15°	257.7	265.3	274.9	289.0	299.2
17.5°	237.8	246.1	257.0	272.4	283.2
20°	218.7	227.0	238.5	253.8	266.0
22.5°	198.8	205.9	218.0	233.4	248.1
25°	178.4	185.4	198.2	213.5	229.5
27.5°	157.9	164.9	177.7	193.7	211.6
30°	136.2	143.9	157.3	175.2	194.4
32.5°	115.7	123.4	137.5	157.3	176.5
35°	95.3	104.2	119.6	139.4	157.9
37.5°	75.4	85.7	102.9	121.5	138.1
40°	56.3	67.1	87.6	103.6	117.6
42.5°	37.1	49.9	73.5	87.0	97.8
45°	20.5	34.5	60.7	71.0	79.9
47.5°	11.5	22.4	48.0	56.3	61.4
50°	9.6	16.6	37.1	42.8	44.8
52.5°	7.7	15.3	28.1	31.3	30.0
55°	7.0	14.7	21.7	21.1	17.9
57.5°	5.8	14.7	17.3	15.3	15.3
60°	4.5	14.1	15.3	13.4	14.1
62.5°	3.8	13.4	14.1	12.8	12.8
65°	3.2	12.8	12.1	11.5	12.1
67.5°	2.6	11.5	11.5	10.9	10.9
70°	2.6	10.9	10.2	9.6	9.6
72.5°	2.6	9.6	9.6	9.0	9.0
75°	2.6	9.0	9.0	8.3	7.7
77.5°	2.6	7.7	8.3	7.7	7.0
80°	2.6	7.0	7.7	7.0	5.8
82.5°	2.6	6.4	7.0	6.4	5.1
85°	1.9	5.8	6.4	5.8	3.8
87.5°	1.9	5.8	6.4	5.1	3.2
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058357
 CATALOG NUMBER: S122RDR-H485D830-X4F0-XX-UDD-BVL-S

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	4.68	5.90	5.05	6.22	6.53	5.74	6.96	6.10	7.27	7.58
	3H	6.02	7.11	6.41	7.44	7.81	7.78	8.87	8.16	9.20	9.56
	4H	6.61	7.62	7.01	7.97	8.35	8.74	9.75	9.15	10.11	10.49
	6H	7.18	8.11	7.60	8.48	8.88	9.69	10.62	10.11	10.99	11.39
	8H	7.51	8.39	7.94	8.78	9.19	10.14	11.02	10.57	11.41	11.82
	12H	7.82	8.66	8.25	9.04	9.47	10.56	11.40	10.99	11.78	12.21
4H	2H	5.64	6.65	6.04	7.00	7.39	6.41	7.42	6.82	7.77	8.16
	3H	7.68	8.51	8.09	8.91	9.32	8.71	9.54	9.13	9.95	10.35
	4H	8.77	9.52	9.20	9.94	10.38	9.86	10.61	10.30	11.03	11.48
	6H	9.64	10.29	10.11	10.74	11.20	11.04	11.68	11.50	12.13	12.60
	8H	10.06	10.66	10.53	11.11	11.58	11.60	12.20	12.07	12.65	13.12
	12H	10.44	10.97	10.92	11.45	11.93	12.14	12.67	12.62	13.16	13.63
8H	4H	9.54	10.14	10.01	10.59	11.06	10.42	11.02	10.89	11.47	11.94
	6H	10.88	11.37	11.38	11.87	12.35	11.87	12.37	12.38	12.87	13.35
	8H	11.59	12.04	12.12	12.56	13.05	12.63	13.08	13.16	13.60	14.09
	12H	12.29	12.68	12.80	13.18	13.75	13.42	13.82	13.94	14.31	14.88
12H	4H	9.69	10.23	10.18	10.71	11.19	10.53	11.06	11.01	11.54	12.02
	6H	11.20	11.64	11.72	12.16	12.65	12.10	12.54	12.62	13.06	13.55
	8H	12.10	12.49	12.61	12.99	13.56	13.00	13.40	13.52	13.89	14.46