

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: P1058203

Luminaire Tested: S122RDR-H1005D835-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058203
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-21)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H1005D835-X4F0-XX-UDD-BVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

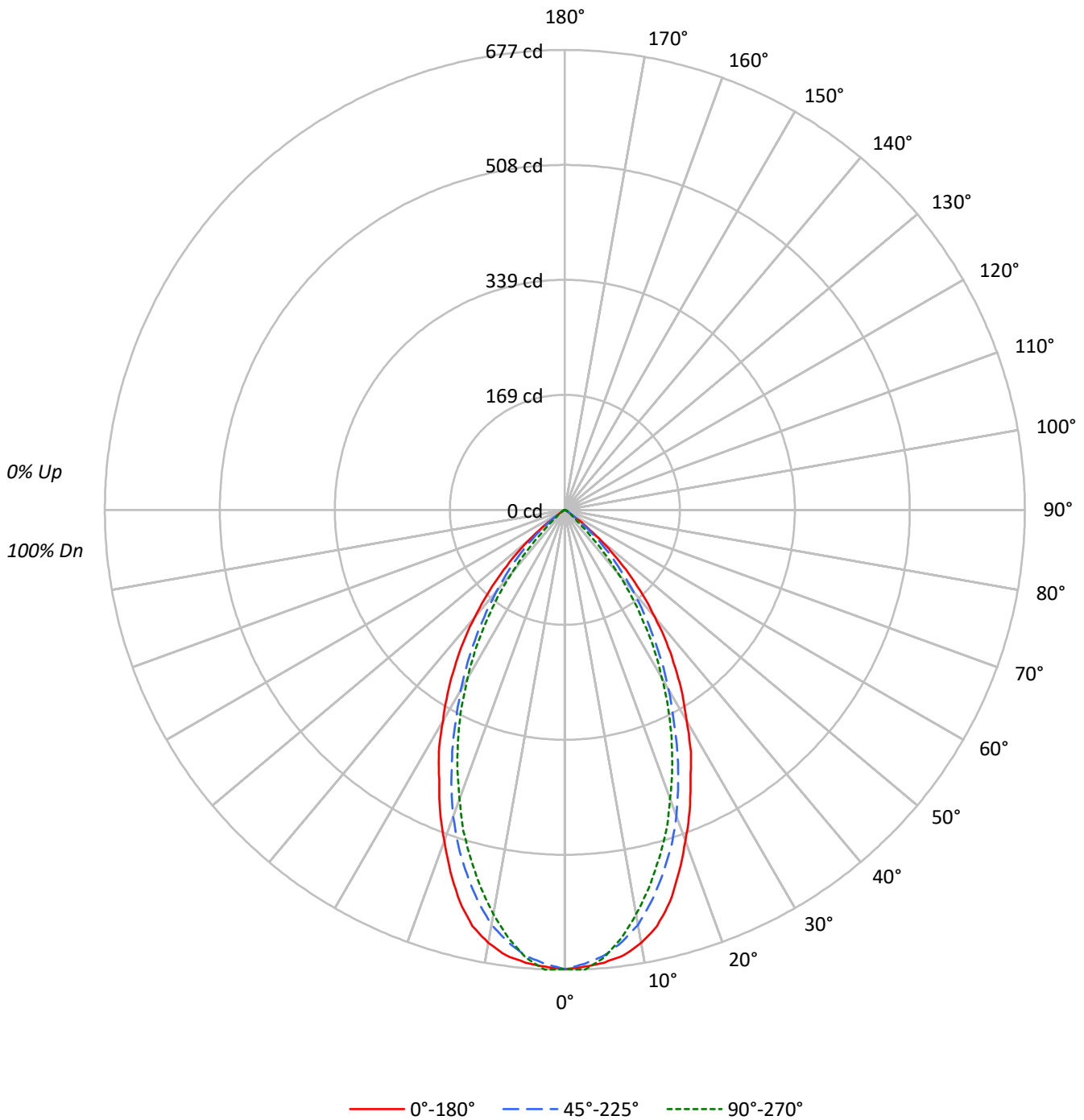
Lumens per Lamp: N/A
Luminaire Lumens: 635.7 lumens
Efficiency: N/A
Efficacy: 17.4 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 0.8 / 0.88
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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: P1058203

CATALOG NUMBER: S122RDR-H1005D835-X4F0-XX-UDD-BVL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1058203

CATALOG NUMBER: S122RDR-H1005D835-X4F0-XX-UDD-BVL-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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87	86
3	101	95	90	85	99	93	89	85	91	87	83	88	85	82	86	83	81	79
4	96	88	82	78	94	87	81	77	85	80	76	83	79	75	81	77	75	73
5	91	82	76	71	89	81	75	71	79	74	70	77	73	70	76	72	69	67
6	86	76	70	66	84	76	70	65	74	69	65	73	68	64	71	67	64	62
7	81	71	65	61	80	71	65	61	69	64	60	68	63	60	67	63	60	58
8	77	67	61	56	76	66	60	56	65	60	56	64	59	56	63	59	56	54
9	73	63	57	53	72	62	57	52	61	56	52	61	56	52	60	55	52	51
10	69	59	53	49	68	59	53	49	58	53	49	57	52	49	56	52	49	47

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12474	12474	12474
5°	12388	12203	12257
10°	12130	11621	11327
15°	11412	10620	10184
20°	10188	9430	8895
25°	8903	7973	7566
30°	7643	6516	6090
35°	6375	5086	4571
40°	4957	3753	2927
45°	3468	2500	1268
50°	1886	1312	451
55°	277	460	322
60°	52	107	210
65°	0	61	127
70°	0	0	76
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3468 cd/sqm



TEST NUMBER: P1058203

CATALOG NUMBER: S122RDR-H1005D835-X4F0-XX-UDD-BVL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.1	9.8
10°-20°	156.5	24.6
20°-30°	182.4	28.7
30°-40°	146.2	23.0
40°-50°	72.7	11.4
50°-60°	14.3	2.3
60°-70°	1.3	0.2
70°-80°	0.1	0.0
80°-90°	0.0	0.0
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°	401.1	63.1
0°-40°	547.3	86.1
0°-60°	634.3	99.8
0°-90°	635.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	635.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	676	676	676	676	676	
5°	669	669	659	660	662	63
15°	597	586	556	542	533	166
25°	437	416	392	383	372	201
35°	283	254	226	216	203	176
45°	133	117	96	64	49	103
55°	9	17	14	9	10	17
65°	0	0	1	1	3	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



TEST NUMBER: P1058203

CATALOG NUMBER: S122RDR-H1005D835-X4F0-XX-UDD-BVL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	676.0	676.0	676.0	676.0	676.0
2.5°	673.1	676.0	668.8	676.0	677.4
5°	668.8	668.8	658.8	660.2	661.7
7.5°	661.7	658.8	641.7	638.8	636.0
10°	647.4	641.7	620.2	608.8	604.5
12.5°	627.4	618.8	590.2	577.4	570.2
15°	597.4	585.9	555.9	541.6	533.1
17.5°	558.8	548.8	520.2	504.5	495.9
20°	518.8	504.5	480.2	464.5	453.0
22.5°	480.2	461.6	435.9	424.4	413.0
25°	437.3	415.9	391.6	383.0	371.6
27.5°	401.6	374.4	345.8	340.1	330.1
30°	358.7	333.0	305.8	297.3	285.8
32.5°	321.5	293.0	265.8	255.8	245.8
35°	283.0	254.4	225.8	215.8	202.9
37.5°	245.8	218.7	190.1	174.4	162.9
40°	205.8	182.9	155.8	135.8	121.5
42.5°	170.1	150.1	124.3	98.6	84.3
45°	132.9	117.2	95.8	64.3	48.6
47.5°	98.6	87.2	70.0	37.2	25.7
50°	65.7	61.5	45.7	18.6	15.7
52.5°	35.7	38.6	27.2	11.4	12.9
55°	8.6	17.1	14.3	8.6	10.0
57.5°	1.4	2.9	7.1	7.1	7.1
60°	1.4	1.4	2.9	4.3	5.7
62.5°	1.4	0.0	1.4	2.9	4.3
65°	0.0	0.0	1.4	1.4	2.9
67.5°	0.0	0.0	0.0	1.4	1.4
70°	0.0	0.0	0.0	1.4	1.4
72.5°	0.0	0.0	0.0	0.0	1.4
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
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: P1058203
 CATALOG NUMBER: S122RDR-H1005D835-X4F0-XX-UDD-BVL-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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4H	2H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00