

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: P1058195

Luminaire Tested: S122RDR-H1005D830-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058195
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-H1005D830-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

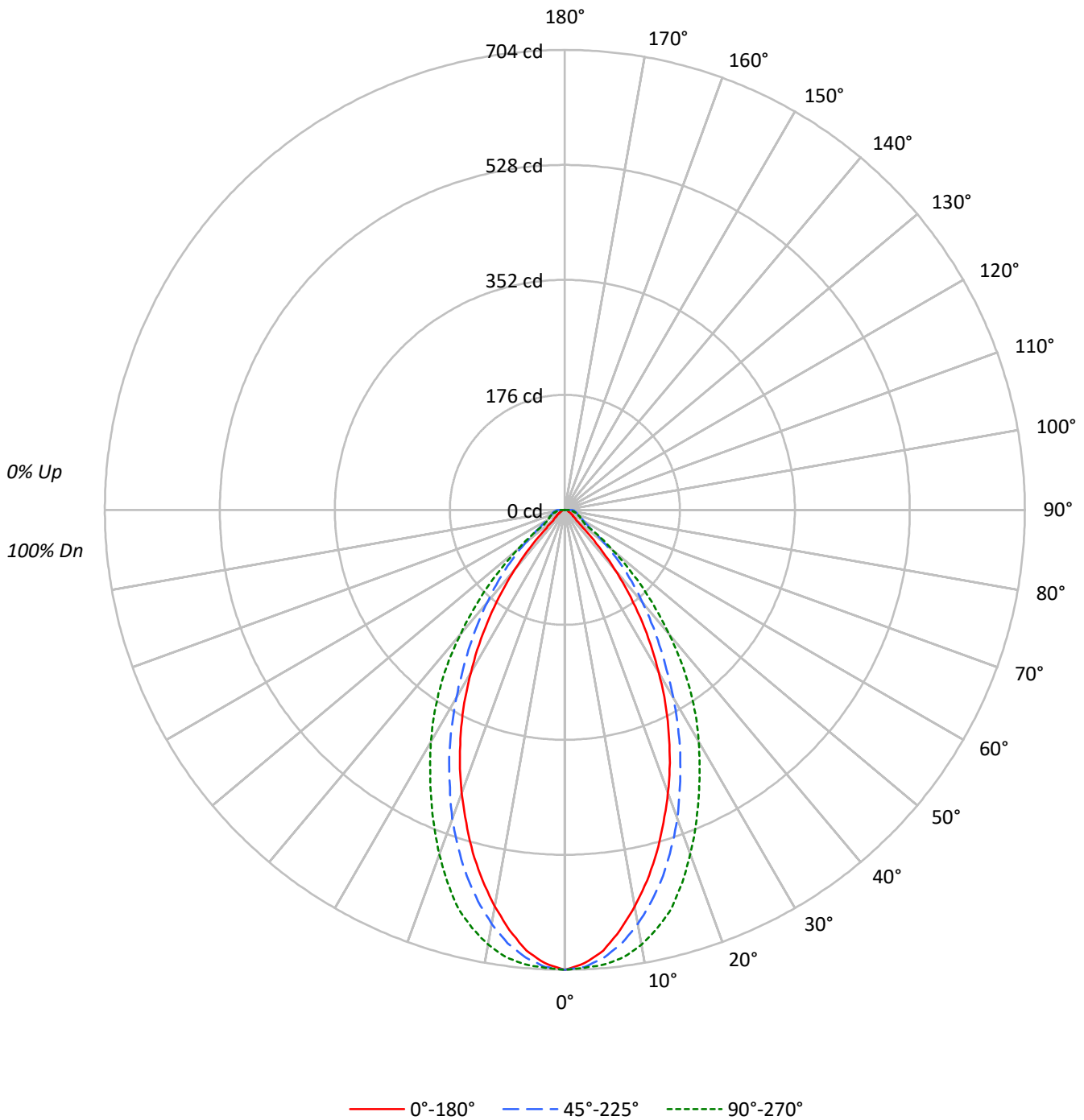
Lumens per Lamp: N/A
Luminaire Lumens: 759.0 lumens
Efficiency: N/A
Efficacy: 20.8 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P1058195

CATALOG NUMBER: S122RDR-H1005D830-X4F0-XX-UDD-BVL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1058195

CATALOG NUMBER: S122RDR-H1005D830-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				
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	77	82	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	68	64	71	67	63	61				
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57				
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52				
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48				
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45				
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12992	12992	12992
5°	12544	12744	12942
10°	11551	12055	12663
15°	10385	11080	12060
20°	9058	9881	11020
25°	7664	8515	9860
30°	6122	7070	8738
35°	4528	5683	7506
40°	2859	4451	5979
45°	1127	3343	4400
50°	580	2245	2710
55°	476	1477	1216
60°	347	1196	1096
65°	293	1118	1118
70°	291	1165	1090
75°	385	1347	1155
80°	574	1721	1286
85°	847	2858	1715

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 5711 cd/sqm



TEST NUMBER: P1058195

CATALOG NUMBER: S122RDR-H1005D830-X4F0-XX-UDD-BVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.4	8.5
10°-20°	162.7	21.4
20°-30°	193.3	25.5
30°-40°	160.8	21.2
40°-50°	89.8	11.8
50°-60°	36.3	4.8
60°-70°	23.2	3.1
70°-80°	17.4	2.3
80°-90°	11.1	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°	420.4	55.4
0°-40°	581.2	76.6
0°-60°	707.3	93.2
0°-90°	759.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	759.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	704	704	704	704	704	
5°	677	689	688	693	699	63
15°	544	560	580	610	631	151
25°	376	391	418	450	484	172
35°	201	220	252	294	333	125
45°	43	73	128	150	169	41
55°	15	31	46	44	38	13
65°	7	27	26	24	26	7
75°	5	19	19	18	16	6
85°	4	12	14	12	8	4
90°	0	0	0	0	0	



TEST NUMBER: P1058195

CATALOG NUMBER: S122RDR-H1005D830-X4F0-XX-UDD-BVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	704.1	704.1	704.1	704.1	704.1
2.5°	694.7	705.5	700.1	700.1	701.4
5°	677.2	689.3	688.0	693.4	698.7
7.5°	648.8	662.3	669.1	681.2	690.7
10°	616.5	631.3	643.4	662.3	675.8
12.5°	581.4	596.2	613.8	638.0	655.6
15°	543.6	559.8	580.0	609.7	631.3
17.5°	501.8	519.3	542.3	574.6	597.6
20°	461.3	478.9	503.2	535.5	561.2
22.5°	419.5	434.4	460.0	492.4	523.4
25°	376.4	391.2	418.2	450.5	484.3
27.5°	333.2	348.0	375.0	408.7	446.5
30°	287.3	303.5	331.8	369.6	410.1
32.5°	244.2	260.3	290.0	331.8	372.3
35°	201.0	219.9	252.3	294.1	333.2
37.5°	159.2	180.8	217.2	256.3	291.4
40°	118.7	141.6	184.8	218.5	248.2
42.5°	78.2	105.2	155.1	183.5	206.4
45°	43.2	72.8	128.1	149.7	168.6
47.5°	24.3	47.2	101.2	118.7	129.5
50°	20.2	35.1	78.2	90.4	94.4
52.5°	16.2	32.4	59.4	66.1	63.4
55°	14.8	31.0	45.9	44.5	37.8
57.5°	12.1	31.0	36.4	32.4	32.4
60°	9.4	29.7	32.4	28.3	29.7
62.5°	8.1	28.3	29.7	27.0	27.0
65°	6.7	27.0	25.6	24.3	25.6
67.5°	5.4	24.3	24.3	22.9	22.9
70°	5.4	22.9	21.6	20.2	20.2
72.5°	5.4	20.2	20.2	18.9	18.9
75°	5.4	18.9	18.9	17.5	16.2
77.5°	5.4	16.2	17.5	16.2	14.8
80°	5.4	14.8	16.2	14.8	12.1
82.5°	5.4	13.5	14.8	13.5	10.8
85°	4.0	12.1	13.5	12.1	8.1
87.5°	4.0	12.1	13.5	10.8	6.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058195
 CATALOG NUMBER: S122RDR-H1005D830-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	7.27	8.49	7.63	8.80	9.12	8.35	9.57	8.72	9.89	10.20
	3H	8.60	9.69	8.98	10.02	10.38	10.38	11.46	10.76	11.79	12.16
	4H	9.18	10.19	9.58	10.54	10.93	11.33	12.34	11.74	12.70	13.08
	6H	9.75	10.68	10.16	11.05	11.44	12.28	13.21	12.69	13.58	13.97
	8H	10.07	10.95	10.50	11.34	11.75	12.73	13.61	13.16	14.00	14.40
	12H	10.38	11.22	10.81	11.60	12.03	13.15	13.99	13.58	14.37	14.80
4H	2H	8.23	9.24	8.64	9.59	9.98	9.03	10.04	9.43	10.39	10.78
	3H	10.26	11.09	10.67	11.50	11.90	11.31	12.14	11.72	12.55	12.95
	4H	11.34	12.09	11.78	12.51	12.96	12.46	13.20	12.89	13.62	14.07
	6H	12.22	12.86	12.68	13.31	13.78	13.62	14.27	14.09	14.72	15.19
	8H	12.63	13.23	13.10	13.68	14.15	14.18	14.79	14.66	15.24	15.71
	12H	13.00	13.54	13.49	14.02	14.50	14.73	15.26	15.22	15.75	16.22
8H	4H	12.11	12.72	12.59	13.17	13.64	13.01	13.61	13.48	14.06	14.53
	6H	13.45	13.95	13.96	14.45	14.93	14.46	14.95	14.96	15.45	15.93
	8H	14.17	14.62	14.69	15.13	15.63	15.22	15.67	15.75	16.19	16.68
	12H	14.86	15.25	15.38	15.75	16.32	16.01	16.40	16.53	16.90	17.47
12H	4H	12.27	12.81	12.76	13.29	13.76	13.11	13.65	13.60	14.13	14.61
	6H	13.78	14.22	14.30	14.74	15.23	14.68	15.13	15.21	15.65	16.14
	8H	14.68	15.07	15.19	15.57	16.14	15.59	15.99	16.11	16.48	17.05