

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: P1058447

Luminaire Tested: S122RDR-H675D835-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058447
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-H675D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

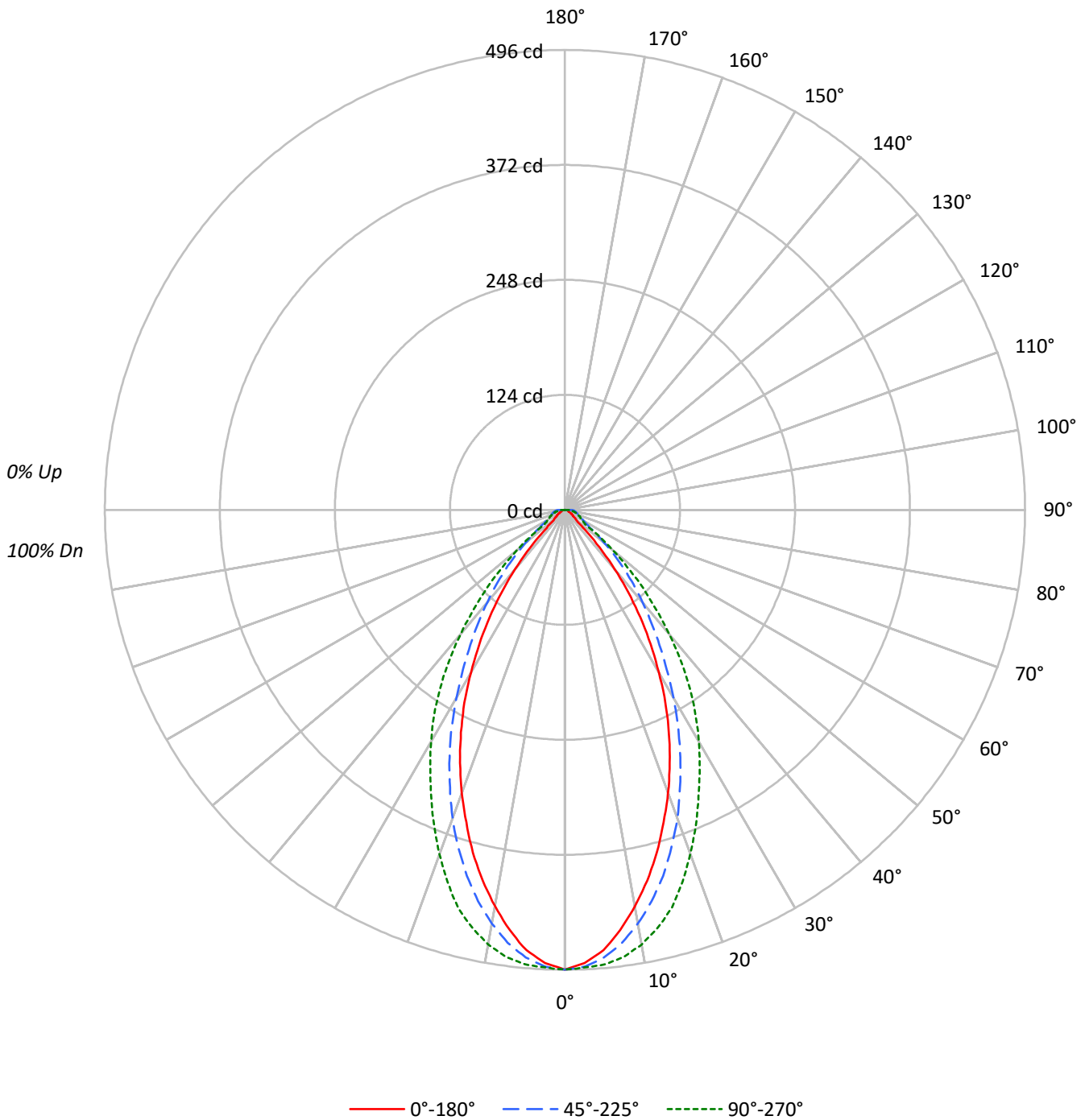
Lumens per Lamp: N/A
Luminaire Lumens: 534.4 lumens
Efficiency: N/A
Efficacy: 22.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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: P1058447

CATALOG NUMBER: S122RDR-H675D835-X4F0-XX-UDD-BVL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1058447

CATALOG NUMBER: S122RDR-H675D835-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°	9151	9151	9151
5°	8834	8974	9115
10°	8134	8490	8917
15°	7313	7804	8493
20°	6380	6957	7760
25°	5395	5996	6943
30°	4310	4979	6153
35°	3187	4001	5285
40°	2014	3134	4211
45°	793	2354	3098
50°	408	1582	1909
55°	335	1039	856
60°	244	841	771
65°	205	786	786
70°	205	820	766
75°	271	948	813
80°	404	1211	903
85°	593	2011	1207

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 4019 cd/sqm



TEST NUMBER: P1058447

CATALOG NUMBER: S122RDR-H675D835-X4F0-XX-UDD-BVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.4	8.5
10°-20°	114.6	21.4
20°-30°	136.1	25.5
30°-40°	113.2	21.2
40°-50°	63.2	11.8
50°-60°	25.5	4.8
60°-70°	16.3	3.1
70°-80°	12.2	2.3
80°-90°	7.8	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°	296.1	55.4
0°-40°	409.3	76.6
0°-60°	498.0	93.2
0°-90°	534.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	534.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	496	496	496	496	496	
5°	477	485	484	488	492	44
15°	383	394	408	429	445	106
25°	265	276	294	317	341	121
35°	142	155	178	207	235	88
45°	30	51	90	105	119	29
55°	10	22	32	31	27	9
65°	5	19	18	17	18	5
75°	4	13	13	12	11	4
85°	3	8	10	8	6	3
90°	0	0	0	0	0	



TEST NUMBER: P1058447

CATALOG NUMBER: S122RDR-H675D835-X4F0-XX-UDD-BVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	495.9	495.9	495.9	495.9	495.9
2.5°	489.2	496.8	493.0	493.0	494.0
5°	476.9	485.4	484.5	488.3	492.1
7.5°	456.9	466.4	471.2	479.7	486.4
10°	434.1	444.6	453.1	466.4	475.9
12.5°	409.4	419.9	432.2	449.3	461.7
15°	382.8	394.2	408.5	429.4	444.6
17.5°	353.4	365.7	381.9	404.7	420.8
20°	324.9	337.2	354.3	377.1	395.2
22.5°	295.4	305.9	323.9	346.7	368.6
25°	265.0	275.5	294.5	317.3	341.0
27.5°	234.6	245.1	264.1	287.8	314.4
30°	202.3	213.7	233.7	260.3	288.8
32.5°	171.9	183.3	204.2	233.7	262.2
35°	141.5	154.8	177.6	207.1	234.6
37.5°	112.1	127.3	152.9	180.5	205.2
40°	83.6	99.7	130.1	153.9	174.8
42.5°	55.1	74.1	109.2	129.2	145.3
45°	30.4	51.3	90.2	105.4	118.7
47.5°	17.1	33.2	71.2	83.6	91.2
50°	14.2	24.7	55.1	63.6	66.5
52.5°	11.4	22.8	41.8	46.5	44.6
55°	10.4	21.8	32.3	31.3	26.6
57.5°	8.5	21.8	25.6	22.8	22.8
60°	6.6	20.9	22.8	19.9	20.9
62.5°	5.7	19.9	20.9	19.0	19.0
65°	4.7	19.0	18.0	17.1	18.0
67.5°	3.8	17.1	17.1	16.1	16.1
70°	3.8	16.1	15.2	14.2	14.2
72.5°	3.8	14.2	14.2	13.3	13.3
75°	3.8	13.3	13.3	12.3	11.4
77.5°	3.8	11.4	12.3	11.4	10.4
80°	3.8	10.4	11.4	10.4	8.5
82.5°	3.8	9.5	10.4	9.5	7.6
85°	2.8	8.5	9.5	8.5	5.7
87.5°	2.8	8.5	9.5	7.6	4.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058447
 CATALOG NUMBER: S122RDR-H675D835-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	6.04	7.26	6.41	7.57	7.89	7.13	8.35	7.50	8.66	8.98
	3H	7.38	8.46	7.76	8.79	9.16	9.15	10.24	9.53	10.57	10.93
	4H	7.95	8.96	8.36	9.31	9.70	10.11	11.12	10.51	11.47	11.85
	6H	8.52	9.45	8.94	9.82	10.22	11.05	11.98	11.47	12.35	12.75
	8H	8.85	9.73	9.28	10.12	10.52	11.50	12.38	11.93	12.77	13.18
	12H	9.15	9.99	9.58	10.37	10.80	11.92	12.76	12.36	13.15	13.58
4H	2H	7.00	8.01	7.41	8.37	8.75	7.81	8.82	8.21	9.17	9.55
	3H	9.03	9.87	9.45	10.27	10.68	10.08	10.91	10.49	11.32	11.72
	4H	10.12	10.87	10.55	11.29	11.73	11.23	11.98	11.66	12.40	12.84
	6H	10.99	11.64	11.45	12.08	12.55	12.39	13.04	12.86	13.49	13.96
	8H	11.40	12.01	11.87	12.46	12.93	12.96	13.56	13.43	14.01	14.48
	12H	11.78	12.31	12.26	12.80	13.27	13.50	14.04	13.99	14.52	15.00
8H	4H	10.89	11.49	11.36	11.94	12.41	11.78	12.39	12.25	12.83	13.30
	6H	12.23	12.72	12.73	13.22	13.70	13.23	13.73	13.73	14.22	14.71
	8H	12.94	13.39	13.47	13.91	14.40	14.00	14.44	14.52	14.96	15.45
	12H	13.63	14.02	14.15	14.52	15.09	14.78	15.18	15.30	15.67	16.24
12H	4H	11.04	11.58	11.53	12.06	12.54	11.89	12.42	12.37	12.91	13.38
	6H	12.55	12.99	13.07	13.51	14.00	13.46	13.90	13.98	14.42	14.91
	8H	13.45	13.84	13.97	14.34	14.91	14.36	14.76	14.88	15.25	15.83