

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: P1058475

Luminaire Tested: S122RDR-H675D927-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058475
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H675D927-X4F0-XX-UDD-BVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

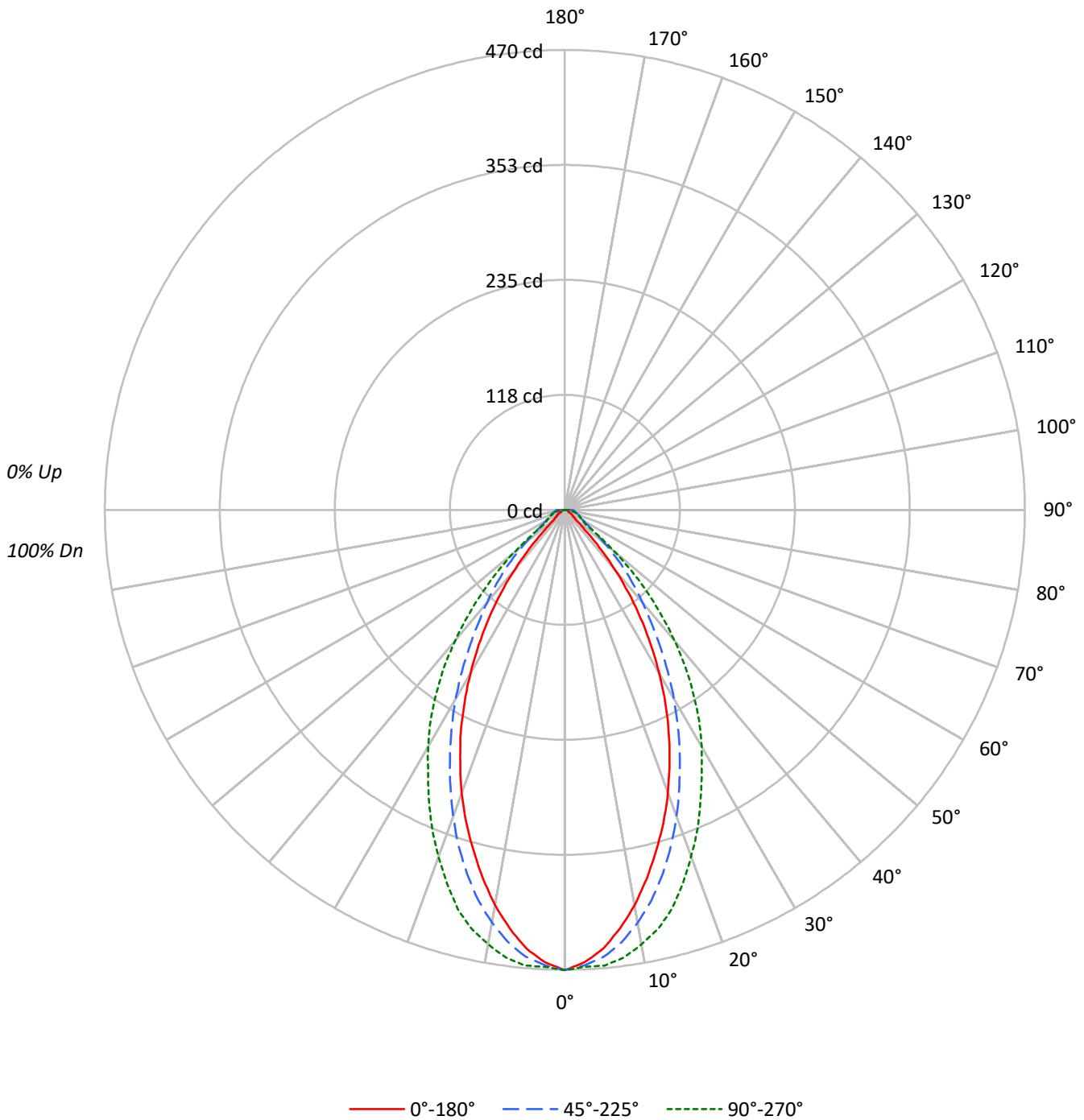
Lumens per Lamp: N/A
Luminaire Lumens: 512.0 lumens
Efficiency: N/A
Efficacy: 21.8 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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: P1058475

CATALOG NUMBER: S122RDR-H675D927-X4F0-XX-UDD-BVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1058475

CATALOG NUMBER: S122RDR-H675D927-X4F0-XX-UDD-BVL-W

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	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	76	81	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	67	64	71	66	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8680	8680	8680
5°	8337	8491	8658
10°	7686	8025	8449
15°	6887	7362	8067
20°	6046	6549	7405
25°	5119	5654	6682
30°	4106	4747	5951
35°	3034	3798	5154
40°	1903	2972	4189
45°	746	2239	3103
50°	367	1513	1900
55°	290	994	846
60°	221	805	779
65°	166	755	755
70°	205	772	772
75°	214	856	806
80°	319	1116	882
85°	635	1905	1270

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 3511 cd/sqm



TEST NUMBER: P1058475

CATALOG NUMBER: S122RDR-H675D927-X4F0-XX-UDD-BVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.0	8.4
10°-20°	108.6	21.2
20°-30°	130.0	25.4
30°-40°	109.4	21.4
40°-50°	62.3	12.2
50°-60°	24.6	4.8
60°-70°	15.5	3.0
70°-80°	11.5	2.2
80°-90°	7.3	1.4
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°	281.6	55.0
0°-40°	390.9	76.3
0°-60°	477.8	93.3
0°-90°	512.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	512.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	470	470	470	470	470	
5°	450	460	458	464	467	42
15°	360	373	385	408	422	101
25°	251	263	278	306	328	115
35°	135	147	169	205	229	84
45°	29	50	86	108	119	27
55°	9	20	31	32	26	8
65°	4	17	17	17	17	4
75°	3	12	12	11	11	3
85°	3	8	9	8	6	3
90°	0	0	0	0	0	



TEST NUMBER: P1058475

CATALOG NUMBER: S122RDR-H675D927-X4F0-XX-UDD-BVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	470.4	470.4	470.4	470.4	470.4
2.5°	462.9	471.2	465.9	466.7	467.4
5°	450.1	459.9	458.4	463.7	467.4
7.5°	431.3	441.8	445.6	454.6	461.4
10°	410.2	422.3	428.3	442.6	450.9
12.5°	386.1	399.7	408.7	426.8	438.8
15°	360.5	373.3	385.4	408.0	422.3
17.5°	335.0	347.8	360.5	385.4	400.4
20°	307.9	319.9	333.5	359.8	377.1
22.5°	279.3	292.1	305.6	332.7	353.8
25°	251.4	262.7	277.7	306.4	328.2
27.5°	222.0	233.3	249.9	279.3	302.6
30°	192.7	204.0	222.8	252.9	279.3
32.5°	163.3	175.4	195.7	228.8	255.2
35°	134.7	146.8	168.6	204.7	228.8
37.5°	106.9	120.4	144.5	179.9	202.5
40°	79.0	94.8	123.4	155.1	173.9
42.5°	52.7	72.3	103.9	130.2	146.0
45°	28.6	50.4	85.8	107.6	118.9
47.5°	15.8	32.4	68.5	85.8	92.6
50°	12.8	22.6	52.7	65.5	66.2
52.5°	10.5	20.3	39.1	46.7	42.9
55°	9.0	19.6	30.9	31.6	26.3
57.5°	7.5	18.8	25.6	22.6	22.6
60°	6.0	18.8	21.8	20.3	21.1
62.5°	4.5	18.8	19.6	18.1	18.8
65°	3.8	17.3	17.3	16.6	17.3
67.5°	3.8	15.8	15.8	15.1	15.8
70°	3.8	15.1	14.3	14.3	14.3
72.5°	3.0	13.5	13.5	12.8	12.8
75°	3.0	12.0	12.0	11.3	11.3
77.5°	3.0	11.3	11.3	10.5	9.8
80°	3.0	9.8	10.5	9.8	8.3
82.5°	3.0	9.0	9.8	9.0	6.8
85°	3.0	8.3	9.0	8.3	6.0
87.5°	2.3	8.3	8.3	6.8	4.5
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058475
 CATALOG NUMBER: S122RDR-H675D927-X4F0-XX-UDD-BVL-W

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	5.19	6.41	5.56	6.73	7.04	7.23	8.45	7.59	8.76	9.08
	3H	6.75	7.83	7.13	8.16	8.53	9.20	10.29	9.58	10.62	10.98
	4H	7.30	8.31	7.70	8.66	9.05	10.12	11.13	10.52	11.48	11.87
	6H	7.85	8.78	8.27	9.15	9.55	11.00	11.93	11.42	12.30	12.70
	8H	8.15	9.03	8.58	9.42	9.82	11.41	12.29	11.84	12.68	13.08
	12H	8.50	9.35	8.94	9.73	10.16	11.85	12.69	12.28	13.07	13.50
4H	2H	6.38	7.39	6.78	7.74	8.13	7.85	8.86	8.25	9.21	9.60
	3H	8.59	9.42	9.00	9.83	10.23	10.09	10.93	10.51	11.33	11.73
	4H	9.63	10.38	10.07	10.80	11.25	11.16	11.91	11.60	12.33	12.78
	6H	10.53	11.18	11.00	11.63	12.09	12.27	12.92	12.74	13.37	13.84
	8H	10.91	11.52	11.39	11.97	12.44	12.80	13.40	13.27	13.85	14.32
	12H	11.33	11.87	11.82	12.35	12.83	13.37	13.91	13.86	14.39	14.87
8H	4H	10.43	11.04	10.90	11.49	11.96	11.65	12.26	12.12	12.71	13.18
	6H	11.82	12.31	12.32	12.81	13.29	13.05	13.55	13.55	14.04	14.53
	8H	12.53	12.98	13.06	13.50	13.99	13.79	14.23	14.31	14.75	15.24
	12H	13.29	13.68	13.80	14.18	14.75	14.62	15.01	15.14	15.51	16.08
12H	4H	10.60	11.13	11.08	11.62	12.09	11.75	12.29	12.24	12.77	13.25
	6H	12.15	12.60	12.67	13.11	13.61	13.27	13.71	13.79	14.23	14.72
	8H	13.06	13.46	13.58	13.95	14.52	14.15	14.55	14.67	15.04	15.61