

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: P1058394

Luminaire Tested: S122RDR-H485D927-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058394
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-H485D927-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

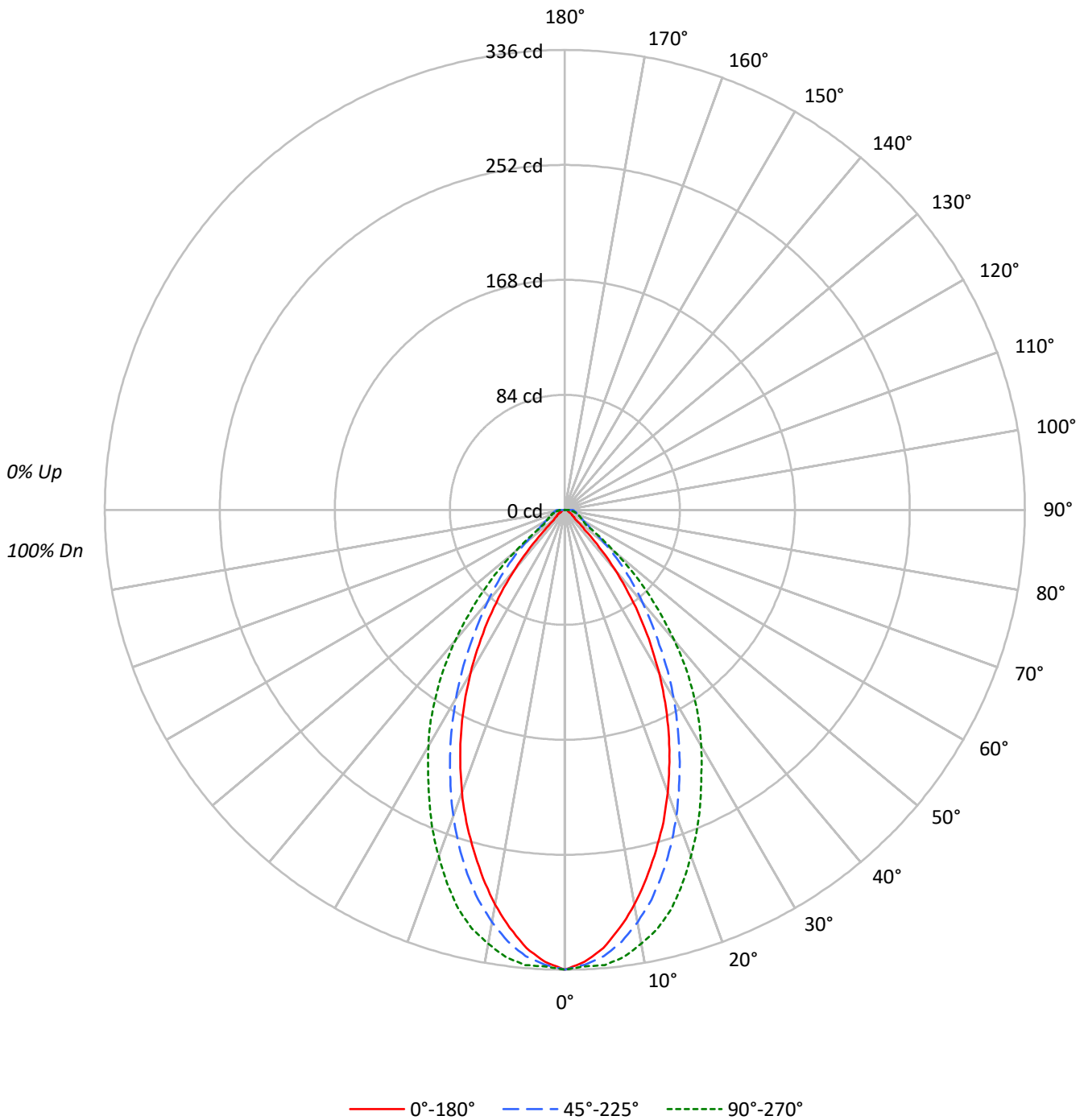
Lumens per Lamp: N/A
Luminaire Lumens: 365.6 lumens
Efficiency: N/A
Efficacy: 21.0 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P1058394

CATALOG NUMBER: S122RDR-H485D927-X4F0-XX-UDD-BVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1058394

CATALOG NUMBER: S122RDR-H485D927-X4F0-XX-UDD-BVL-W

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	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	100	100	100	100	100														
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90	90	90	90	90	90	90														
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81	81	81	81	81	81	81														
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74	74	74	74	74	74	74														
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67	67	67	67	67	67	67														
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61	61	61	61	61	61	61														
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56	56	56	56	56	56	56														
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52	52	52	52	52	52	52														
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48	48	48	48	48	48	48														
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45	45	45	45	45	45	45														
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42	42	42	42	42	42	42														

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6198	6198	6198
5°	5953	6063	6183
10°	5488	5730	6031
15°	4917	5257	5760
20°	4316	4675	5288
25°	3655	4037	4770
30°	2932	3390	4249
35°	2167	2712	3681
40°	1359	2122	2992
45°	532	1600	2216
50°	261	1079	1358
55°	206	708	605
60°	159	576	554
65°	118	541	541
70°	146	550	550
75°	150	613	577
80°	223	797	627
85°	445	1355	910

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 2496 cd/sqm



TEST NUMBER: P1058394

CATALOG NUMBER: S122RDR-H485D927-X4F0-XX-UDD-BVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.7	8.4
10°-20°	77.6	21.2
20°-30°	92.8	25.4
30°-40°	78.1	21.4
40°-50°	44.5	12.2
50°-60°	17.5	4.8
60°-70°	11.0	3.0
70°-80°	8.2	2.2
80°-90°	5.2	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°	201.0	55.0
0°-40°	279.1	76.4
0°-60°	341.1	93.3
0°-90°	365.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	365.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	336	336	336	336	336	
5°	321	328	327	331	334	30
15°	257	267	275	291	302	72
25°	180	188	198	219	234	82
35°	96	105	120	146	163	60
45°	20	36	61	77	85	19
55°	6	14	22	23	19	6
65°	3	12	12	12	12	3
75°	2	9	9	8	8	2
85°	2	6	6	6	4	2
90°	0	0	0	0	0	



TEST NUMBER: P1058394

CATALOG NUMBER: S122RDR-H485D927-X4F0-XX-UDD-BVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	335.9	335.9	335.9	335.9	335.9
2.5°	330.5	336.5	332.7	333.2	333.8
5°	321.4	328.4	327.3	331.1	333.8
7.5°	308.0	315.5	318.2	324.6	329.5
10°	292.9	301.5	305.8	316.0	321.9
12.5°	275.7	285.4	291.8	304.7	313.3
15°	257.4	266.6	275.2	291.3	301.5
17.5°	239.2	248.3	257.4	275.2	285.9
20°	219.8	228.4	238.1	256.9	269.3
22.5°	199.4	208.5	218.2	237.6	252.6
25°	179.5	187.6	198.3	218.7	234.3
27.5°	158.6	166.6	178.4	199.4	216.1
30°	137.6	145.7	159.1	180.6	199.4
32.5°	116.6	125.2	139.7	163.4	182.2
35°	96.2	104.8	120.4	146.2	163.4
37.5°	76.3	86.0	103.2	128.5	144.6
40°	56.4	67.7	88.1	110.7	124.2
42.5°	37.6	51.6	74.2	93.0	104.3
45°	20.4	36.0	61.3	76.9	84.9
47.5°	11.3	23.1	48.9	61.3	66.1
50°	9.1	16.1	37.6	46.8	47.3
52.5°	7.5	14.5	27.9	33.3	30.6
55°	6.4	14.0	22.0	22.6	18.8
57.5°	5.4	13.4	18.3	16.1	16.1
60°	4.3	13.4	15.6	14.5	15.0
62.5°	3.2	13.4	14.0	12.9	13.4
65°	2.7	12.4	12.4	11.8	12.4
67.5°	2.7	11.3	11.3	10.7	11.3
70°	2.7	10.7	10.2	10.2	10.2
72.5°	2.1	9.7	9.7	9.1	9.1
75°	2.1	8.6	8.6	8.1	8.1
77.5°	2.1	8.1	8.1	7.5	7.0
80°	2.1	7.0	7.5	7.0	5.9
82.5°	2.1	6.4	7.0	6.4	4.8
85°	2.1	5.9	6.4	5.9	4.3
87.5°	1.6	5.9	5.9	4.8	3.2
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058394
 CATALOG NUMBER: S122RDR-H485D927-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	4.02	5.24	4.38	5.55	5.86	6.04	7.27	6.41	7.58	7.89
	3H	5.56	6.65	5.95	6.98	7.35	8.02	9.10	8.40	9.43	9.80
	4H	6.11	7.13	6.52	7.48	7.86	8.94	9.95	9.34	10.30	10.69
	6H	6.66	7.59	7.08	7.97	8.36	9.82	10.75	10.24	11.12	11.52
	8H	6.95	7.83	7.38	8.22	8.63	10.22	11.10	10.65	11.49	11.90
	12H	7.30	8.14	7.73	8.52	8.96	10.66	11.50	11.10	11.89	12.32
4H	2H	5.21	6.22	5.62	6.58	6.96	6.67	7.68	7.08	8.03	8.42
	3H	7.41	8.25	7.83	8.65	9.06	8.91	9.75	9.33	10.15	10.56
	4H	8.46	9.21	8.90	9.63	10.08	9.99	10.74	10.43	11.16	11.60
	6H	9.36	10.01	9.82	10.45	10.92	11.10	11.75	11.57	12.20	12.66
	8H	9.74	10.34	10.21	10.79	11.26	11.62	12.22	12.09	12.67	13.14
	12H	10.15	10.68	10.63	11.17	11.64	12.19	12.73	12.68	13.21	13.69
8H	4H	9.27	9.88	9.74	10.32	10.80	10.48	11.09	10.96	11.54	12.01
	6H	10.65	11.15	11.15	11.64	12.13	11.88	12.38	12.38	12.87	13.36
	8H	11.36	11.81	11.88	12.32	12.81	12.61	13.06	13.14	13.57	14.07
	12H	12.10	12.49	12.62	12.99	13.56	13.44	13.83	13.96	14.33	14.90
12H	4H	9.43	9.97	9.92	10.45	10.93	10.58	11.12	11.07	11.60	12.08
	6H	10.98	11.43	11.51	11.94	12.44	12.10	12.54	12.62	13.06	13.55
	8H	11.89	12.28	12.40	12.78	13.35	12.97	13.37	13.49	13.86	14.44