

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: P1058403

Luminaire Tested: S122RDR-H485D930-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058403
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-H485D930-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: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

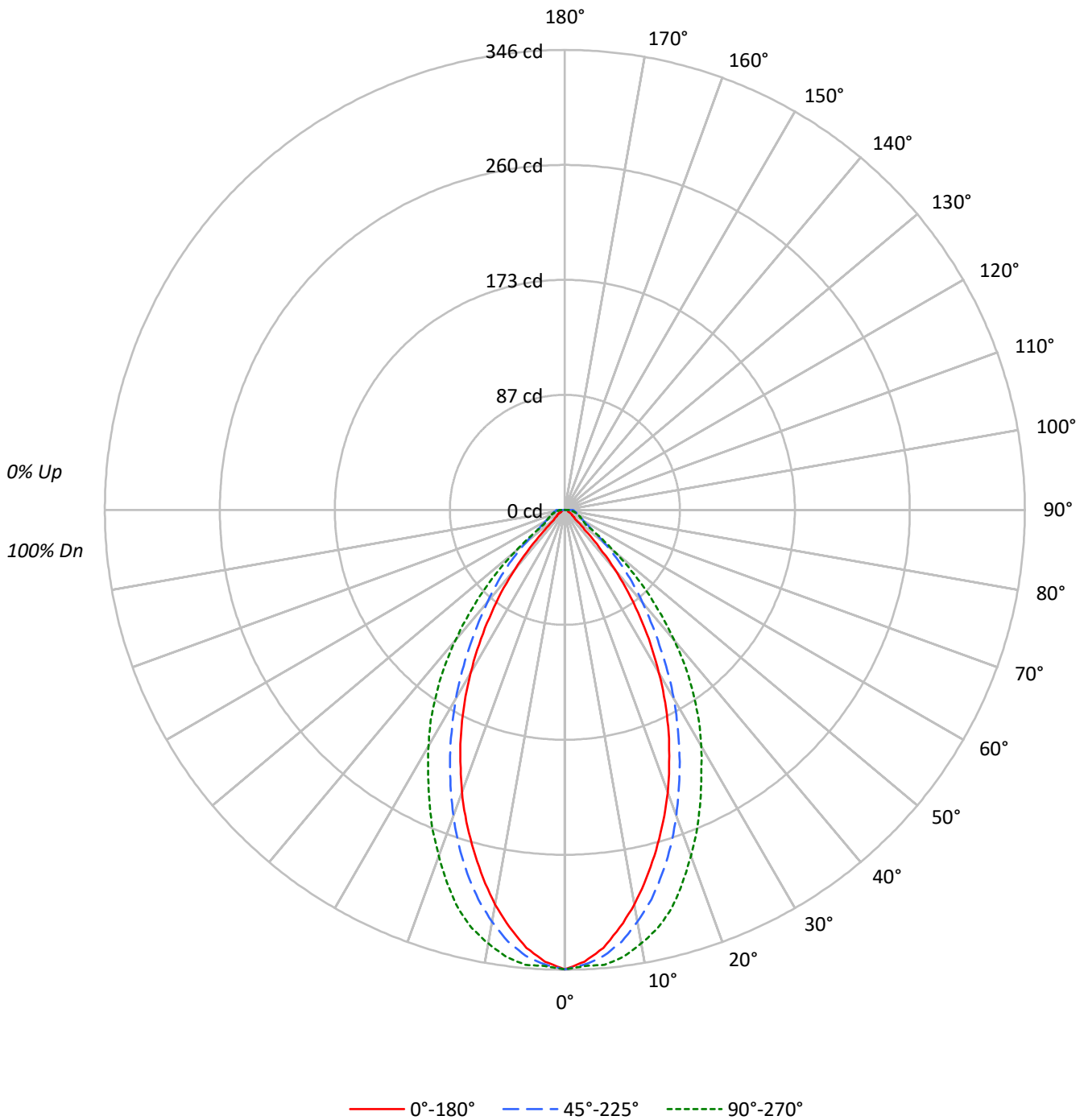
Lumens per Lamp: N/A
Luminaire Lumens: 376.3 lumens
Efficiency: N/A
Efficacy: 21.6 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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: P1058403

CATALOG NUMBER: S122RDR-H485D930-X4F0-XX-UDD-BVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1058403

CATALOG NUMBER: S122RDR-H485D930-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																				
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°	6379	6379	6379
5°	6127	6240	6363
10°	5649	5897	6208
15°	5062	5410	5928
20°	4442	4811	5441
25°	3763	4155	4911
30°	3017	3488	4372
35°	2230	2791	3789
40°	1400	2185	3078
45°	548	1647	2281
50°	270	1111	1398
55°	212	730	624
60°	162	590	572
65°	122	555	555
70°	151	566	566
75°	157	635	592
80°	234	818	648
85°	466	1397	932

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 2581 cd/sqm

TEST NUMBER: P1058403

CATALOG NUMBER: S122RDR-H485D930-X4F0-XX-UDD-BVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.6	8.4
10°-20°	79.8	21.2
20°-30°	95.5	25.4
30°-40°	80.4	21.4
40°-50°	45.8	12.2
50°-60°	18.0	4.8
60°-70°	11.4	3.0
70°-80°	8.5	2.2
80°-90°	5.4	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°	206.9	55.0
0°-40°	287.3	76.3
0°-60°	351.1	93.3
0°-90°	376.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	376.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	346	346	346	346	346	
5°	331	338	337	341	344	31
15°	265	274	283	300	310	74
25°	185	193	204	225	241	84
35°	99	108	124	150	168	61
45°	21	37	63	79	87	20
55°	7	14	23	23	19	6
65°	3	13	13	12	13	3
75°	2	9	9	8	8	2
85°	2	6	7	6	4	2
90°	0	0	0	0	0	



TEST NUMBER: P1058403

CATALOG NUMBER: S122RDR-H485D930-X4F0-XX-UDD-BVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	345.7	345.7	345.7	345.7	345.7
2.5°	340.2	346.3	342.4	343.0	343.5
5°	330.8	338.0	336.9	340.7	343.5
7.5°	317.0	324.7	327.5	334.1	339.1
10°	301.5	310.3	314.7	325.2	331.3
12.5°	283.8	293.7	300.4	313.6	322.5
15°	265.0	274.4	283.2	299.8	310.3
17.5°	246.1	255.6	265.0	283.2	294.3
20°	226.2	235.1	245.0	264.4	277.1
22.5°	205.2	214.6	224.6	244.5	260.0
25°	184.8	193.0	204.1	225.1	241.2
27.5°	163.2	171.5	183.6	205.2	222.4
30°	141.6	149.9	163.7	185.9	205.2
32.5°	120.0	128.9	143.8	168.2	187.5
35°	99.0	107.9	123.9	150.5	168.2
37.5°	78.5	88.5	106.2	132.2	148.8
40°	58.1	69.7	90.7	113.9	127.8
42.5°	38.7	53.1	76.3	95.7	107.3
45°	21.0	37.1	63.1	79.1	87.4
47.5°	11.6	23.8	50.3	63.1	68.0
50°	9.4	16.6	38.7	48.1	48.7
52.5°	7.7	14.9	28.8	34.3	31.5
55°	6.6	14.4	22.7	23.2	19.4
57.5°	5.5	13.8	18.8	16.6	16.6
60°	4.4	13.8	16.0	14.9	15.5
62.5°	3.3	13.8	14.4	13.3	13.8
65°	2.8	12.7	12.7	12.2	12.7
67.5°	2.8	11.6	11.6	11.1	11.6
70°	2.8	11.1	10.5	10.5	10.5
72.5°	2.2	10.0	10.0	9.4	9.4
75°	2.2	8.9	8.9	8.3	8.3
77.5°	2.2	8.3	8.3	7.7	7.2
80°	2.2	7.2	7.7	7.2	6.1
82.5°	2.2	6.6	7.2	6.6	5.0
85°	2.2	6.1	6.6	6.1	4.4
87.5°	1.7	6.1	6.1	5.0	3.3
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058403
 CATALOG NUMBER: S122RDR-H485D930-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	4.11	5.33	4.48	5.65	5.96	6.15	7.38	6.52	7.69	8.00
	3H	5.67	6.76	6.05	7.09	7.45	8.13	9.21	8.51	9.54	9.91
	4H	6.23	7.24	6.63	7.59	7.98	9.04	10.05	9.45	10.41	10.79
	6H	6.78	7.71	7.20	8.09	8.48	9.93	10.86	10.34	11.23	11.62
	8H	7.07	7.95	7.51	8.35	8.75	10.33	11.21	10.76	11.60	12.01
	12H	7.43	8.27	7.87	8.66	9.09	10.77	11.61	11.21	12.00	12.43
4H	2H	5.30	6.31	5.71	6.66	7.05	6.77	7.78	7.18	8.14	8.52
	3H	7.52	8.35	7.93	8.76	9.16	9.02	9.85	9.43	10.26	10.66
	4H	8.58	9.33	9.02	9.75	10.19	10.09	10.84	10.53	11.26	11.70
	6H	9.47	10.12	9.94	10.57	11.03	11.20	11.85	11.66	12.29	12.76
	8H	9.85	10.46	10.32	10.91	11.38	11.72	12.33	12.19	12.78	13.25
	12H	10.27	10.80	10.76	11.29	11.76	12.30	12.83	12.79	13.32	13.79
8H	4H	9.38	9.99	9.85	10.43	10.91	10.58	11.19	11.05	11.64	12.11
	6H	10.76	11.25	11.26	11.75	12.23	11.98	12.47	12.48	12.97	13.45
	8H	11.47	11.92	11.99	12.43	12.93	12.72	13.16	13.24	13.68	14.17
	12H	12.22	12.61	12.74	13.11	13.68	13.55	13.94	14.06	14.44	15.01
12H	4H	9.54	10.08	10.03	10.56	11.04	10.68	11.22	11.17	11.70	12.18
	6H	11.09	11.53	11.61	12.05	12.54	12.19	12.64	12.72	13.16	13.65
	8H	12.00	12.39	12.51	12.88	13.46	13.08	13.47	13.60	13.97	14.54