

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: P1058423

Luminaire Tested: S122RDR-H485D940-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058423
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-59)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H485D940-X4F0-XX-UDD-SVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

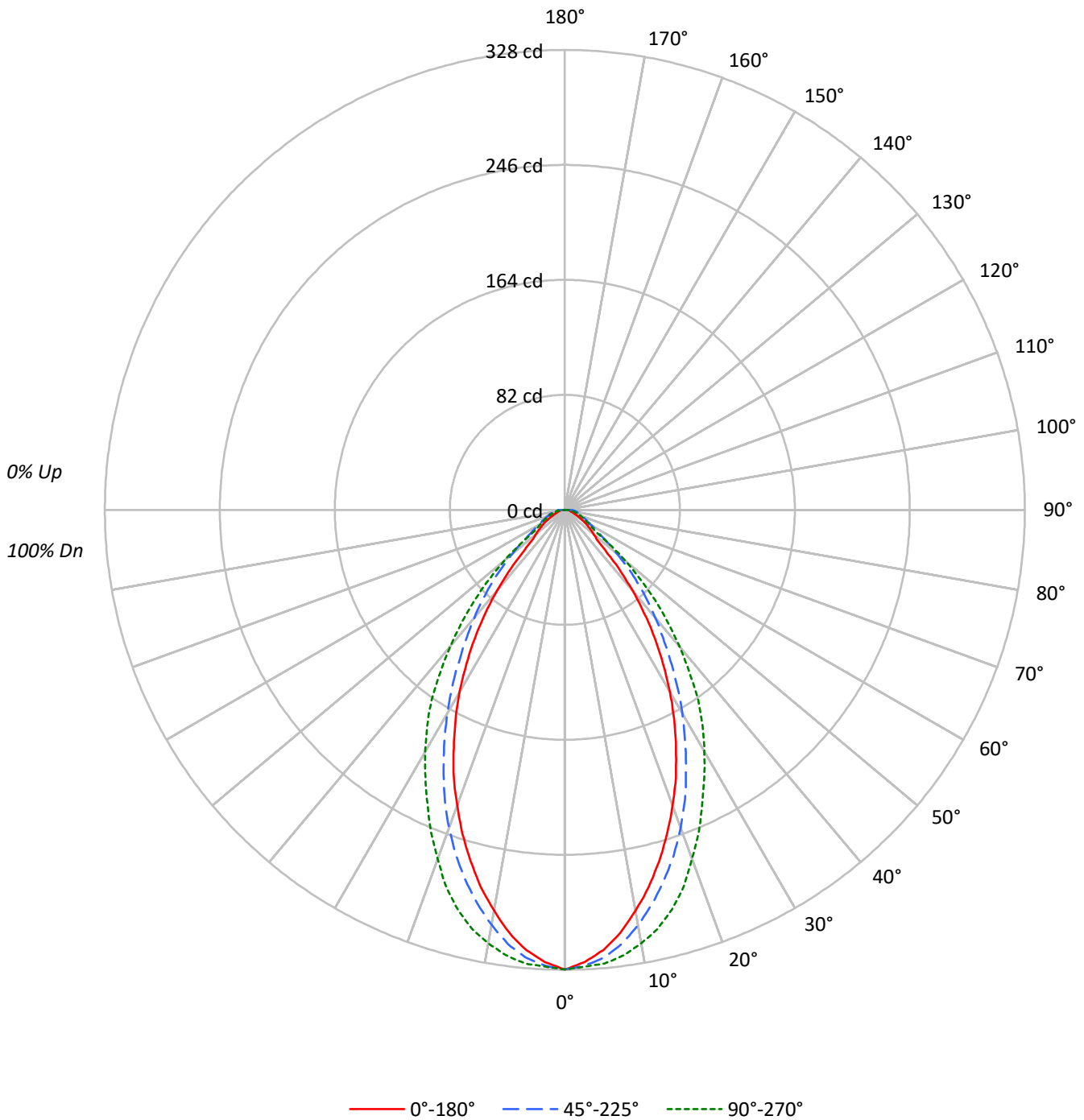
Lumens per Lamp: N/A
Luminaire Lumens: 395.4 lumens
Efficiency: N/A
Efficacy: 22.7 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.97 / 0.94
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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: P1058423

CATALOG NUMBER: S122RDR-H485D940-X4F0-XX-UDD-SVL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1058423

CATALOG NUMBER: S122RDR-H485D940-X4F0-XX-UDD-SVL-S

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									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	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															
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89													89															
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80													80															
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72													72															
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65													65															
5	86	75	68	63	84	74	68	63	72	66	62	71	65	61	69	64	61	59													59															
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54													54															
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50													50															
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46													46															
9	67	56	49	45	66	56	49	44	55	49	44	54	48	44	53	48	44	42													42															
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39													39															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6049	6049	6049
5°	5837	5937	6016
10°	5439	5632	5882
15°	4955	5223	5637
20°	4406	4738	5202
25°	3818	4162	4715
30°	3196	3569	4240
35°	2521	2955	3733
40°	1807	2418	3059
45°	1057	1910	2367
50°	764	1389	1596
55°	643	991	836
60°	513	805	716
65°	424	712	659
70°	361	685	620
75°	342	734	606
80°	383	903	638
85°	635	1419	889

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2367 cd/sqm



TEST NUMBER: P1058423

CATALOG NUMBER: S122RDR-H485D940-X4F0-XX-UDD-SVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.0	7.6
10°-20°	76.9	19.5
20°-30°	94.6	23.9
30°-40°	83.6	21.1
40°-50°	53.4	13.5
50°-60°	26.0	6.6
60°-70°	15.5	3.9
70°-80°	9.9	2.5
80°-90°	5.5	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°	201.6	51.0
0°-40°	285.2	72.1
0°-60°	364.6	92.2
0°-90°	395.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	395.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	328	328	328	328	328	
5°	315	322	320	322	325	29
15°	259	267	273	286	295	72
25°	188	194	204	217	232	86
35°	112	118	131	149	166	69
45°	40	52	73	82	91	34
55°	20	27	31	29	26	18
65°	10	18	16	15	15	10
75°	5	11	10	9	8	5
85°	3	6	7	6	4	3
90°	0	0	0	0	0	



TEST NUMBER: P1058423

CATALOG NUMBER: S122RDR-H485D940-X4F0-XX-UDD-SVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	327.8	327.8	327.8	327.8	327.8
2.5°	322.9	329.0	325.4	325.4	326.0
5°	315.1	321.7	320.5	321.7	324.8
7.5°	304.2	310.9	312.1	316.9	320.5
10°	290.3	296.9	300.6	308.4	313.9
12.5°	275.8	282.4	287.9	298.2	306.0
15°	259.4	266.7	273.4	285.5	295.1
17.5°	242.5	249.8	258.2	270.3	281.8
20°	224.4	231.0	241.3	252.8	264.9
22.5°	206.8	212.9	223.8	234.7	249.2
25°	187.5	194.1	204.4	217.1	231.6
27.5°	168.7	175.4	185.7	200.2	215.3
30°	150.0	156.0	167.5	182.6	199.0
32.5°	130.6	136.7	149.4	165.7	182.6
35°	111.9	117.9	131.2	149.4	165.7
37.5°	93.1	99.8	114.9	131.8	145.7
40°	75.0	82.9	100.4	114.9	127.0
42.5°	56.8	67.7	86.5	98.6	108.3
45°	40.5	52.0	73.2	82.2	90.7
47.5°	30.8	39.9	60.5	67.1	72.6
50°	26.6	32.7	48.4	53.2	55.6
52.5°	23.0	29.0	38.7	40.5	39.3
55°	20.0	26.6	30.8	29.0	26.0
57.5°	16.9	24.8	25.4	21.8	22.4
60°	13.9	22.4	21.8	18.7	19.4
62.5°	11.5	20.6	18.7	16.9	16.9
65°	9.7	18.1	16.3	15.1	15.1
67.5°	7.9	16.3	14.5	13.3	13.3
70°	6.7	14.5	12.7	11.5	11.5
72.5°	6.0	12.7	11.5	10.3	10.3
75°	4.8	10.9	10.3	9.1	8.5
77.5°	4.2	9.1	9.1	8.5	7.3
80°	3.6	7.9	8.5	7.3	6.0
82.5°	3.6	7.3	7.3	6.7	4.8
85°	3.0	6.0	6.7	6.0	4.2
87.5°	1.8	5.4	5.4	4.8	3.0
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058423
 CATALOG NUMBER: S122RDR-H485D940-X4F0-XX-UDD-SVL-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	8.28	9.56	8.65	9.87	10.19	7.81	9.09	8.18	9.41	9.72
	3H	9.46	10.60	9.84	10.93	11.29	9.37	10.51	9.75	10.84	11.21
	4H	9.89	10.95	10.29	11.30	11.68	10.06	11.12	10.46	11.47	11.86
	6H	10.23	11.21	10.64	11.58	11.97	10.71	11.69	11.12	12.06	12.45
	8H	10.42	11.35	10.85	11.74	12.15	10.99	11.92	11.42	12.31	12.72
	12H	10.64	11.52	11.07	11.91	12.34	11.31	12.19	11.74	12.57	13.00
4H	2H	8.78	9.84	9.18	10.19	10.58	8.41	9.47	8.81	9.82	10.21
	3H	10.43	11.30	10.84	11.71	12.11	10.21	11.08	10.62	11.49	11.89
	4H	11.19	11.98	11.63	12.40	12.84	11.05	11.84	11.49	12.26	12.70
	6H	11.79	12.47	12.26	12.92	13.39	11.91	12.59	12.38	13.04	13.51
	8H	12.09	12.73	12.56	13.18	13.65	12.30	12.94	12.77	13.38	13.86
	12H	12.40	12.97	12.89	13.45	13.92	12.73	13.29	13.22	13.78	14.25
8H	4H	11.61	12.25	12.08	12.70	13.17	11.51	12.15	11.98	12.60	13.07
	6H	12.56	13.09	13.07	13.58	14.06	12.63	13.15	13.13	13.65	14.13
	8H	13.11	13.58	13.64	14.10	14.59	13.21	13.67	13.73	14.19	14.68
	12H	13.67	14.09	14.19	14.58	15.15	13.87	14.28	14.38	14.78	15.35
12H	4H	11.68	12.25	12.17	12.73	13.20	11.60	12.16	12.08	12.64	13.12
	6H	12.75	13.22	13.27	13.74	14.23	12.81	13.28	13.34	13.80	14.29
	8H	13.45	13.86	13.96	14.36	14.93	13.53	13.94	14.04	14.43	15.01