

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1057970

Luminaire Tested: S122RDRP-S485D840-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057970
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: S122RDRP-S485D840-X4F0-XX-UDD-BVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

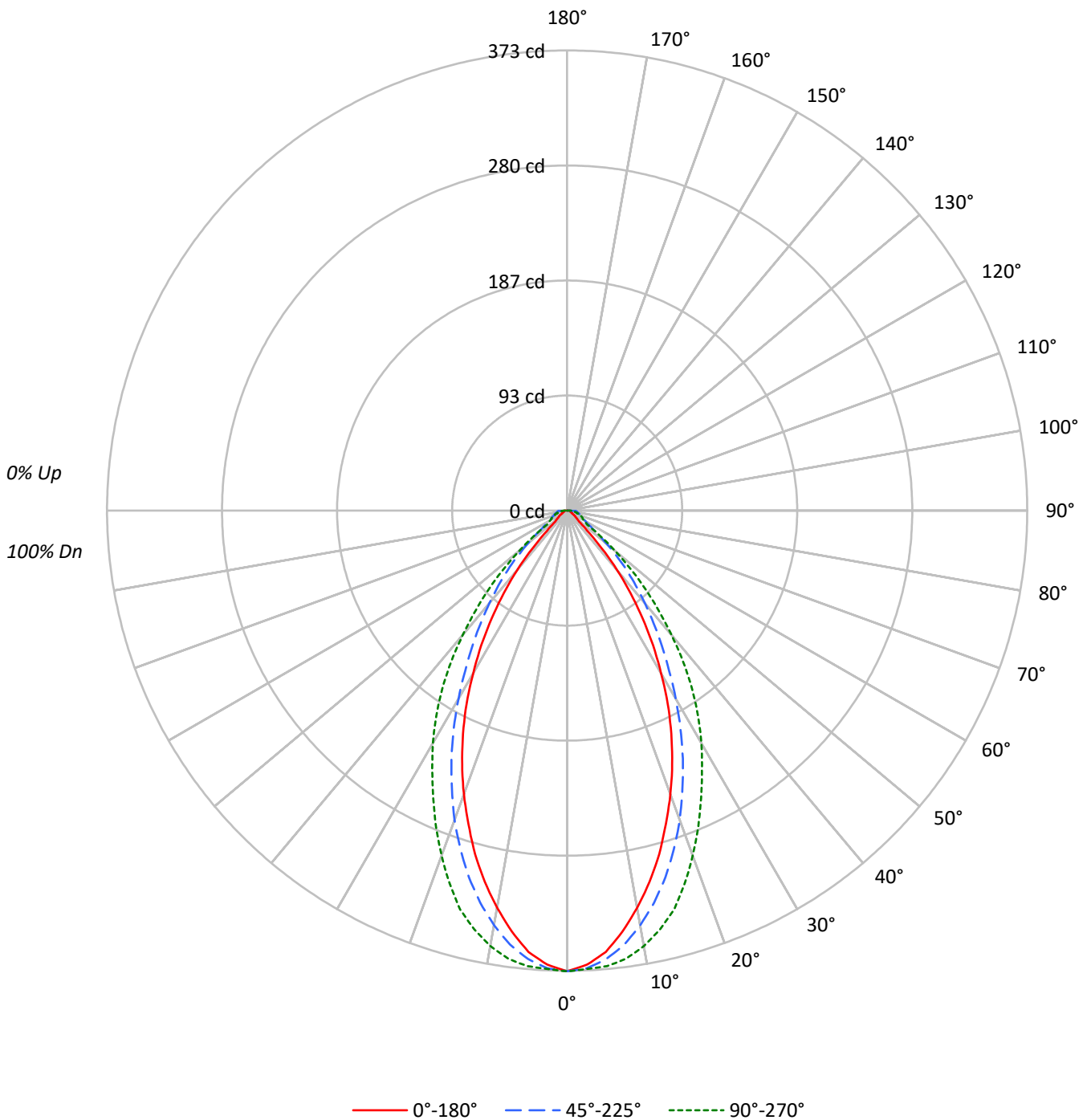
Lumens per Lamp: N/A
Luminaire Lumens: 402.6 lumens
Efficiency: N/A
Efficacy: 20.5 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (A_{in}): 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: P1057970

CATALOG NUMBER: S122RDRP-S485D840-X4F0-XX-UDD-BVL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1057970

CATALOG NUMBER: S122RDRP-S485D840-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	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°	6890	6890	6890
5°	6652	6759	6865
10°	6125	6395	6715
15°	5508	5876	6396
20°	4805	5239	5844
25°	4064	4516	5228
30°	3247	3750	4634
35°	2401	3014	3980
40°	1518	2361	3170
45°	598	1775	2333
50°	307	1191	1438
55°	254	782	643
60°	185	635	579
65°	157	594	594
70°	156	615	577
75°	207	713	613
80°	308	914	680
85°	445	1524	910

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 3046 cd/sqm

TEST NUMBER: P1057970

CATALOG NUMBER: S122RDRP-S485D840-X4F0-XX-UDD-BVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.2	8.5
10°-20°	86.3	21.4
20°-30°	102.5	25.5
30°-40°	85.3	21.2
40°-50°	47.6	11.8
50°-60°	19.2	4.8
60°-70°	12.3	3.1
70°-80°	9.2	2.3
80°-90°	5.9	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°	223.0	55.4
0°-40°	308.3	76.6
0°-60°	375.1	93.2
0°-90°	402.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	402.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	373	373	373	373	373	
5°	359	366	365	368	371	33
15°	288	297	308	323	335	80
25°	200	208	222	239	257	91
35°	107	117	134	156	177	66
45°	23	39	68	79	89	22
55°	8	16	24	24	20	7
65°	4	14	14	13	14	4
75°	3	10	10	9	9	3
85°	2	6	7	6	4	2
90°	0	0	0	0	0	



TEST NUMBER: P1057970

CATALOG NUMBER: S122RDRP-S485D840-X4F0-XX-UDD-BVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	373.4	373.4	373.4	373.4	373.4
2.5°	368.4	374.2	371.3	371.3	372.0
5°	359.1	365.6	364.9	367.7	370.6
7.5°	344.1	351.3	354.8	361.3	366.3
10°	326.9	334.8	341.3	351.3	358.4
12.5°	308.3	316.2	325.5	338.4	347.7
15°	288.3	296.9	307.6	323.4	334.8
17.5°	266.1	275.4	287.6	304.8	316.9
20°	244.7	254.0	266.8	284.0	297.6
22.5°	222.5	230.4	244.0	261.1	277.6
25°	199.6	207.5	221.8	238.9	256.8
27.5°	176.7	184.6	198.9	216.8	236.8
30°	152.4	161.0	176.0	196.0	217.5
32.5°	129.5	138.1	153.8	176.0	197.5
35°	106.6	116.6	133.8	156.0	176.7
37.5°	84.4	95.9	115.2	135.9	154.5
40°	63.0	75.1	98.0	115.9	131.6
42.5°	41.5	55.8	82.3	97.3	109.5
45°	22.9	38.6	68.0	79.4	89.4
47.5°	12.9	25.0	53.7	63.0	68.7
50°	10.7	18.6	41.5	47.9	50.1
52.5°	8.6	17.2	31.5	35.1	33.6
55°	7.9	16.5	24.3	23.6	20.0
57.5°	6.4	16.5	19.3	17.2	17.2
60°	5.0	15.7	17.2	15.0	15.7
62.5°	4.3	15.0	15.7	14.3	14.3
65°	3.6	14.3	13.6	12.9	13.6
67.5°	2.9	12.9	12.9	12.2	12.2
70°	2.9	12.2	11.4	10.7	10.7
72.5°	2.9	10.7	10.7	10.0	10.0
75°	2.9	10.0	10.0	9.3	8.6
77.5°	2.9	8.6	9.3	8.6	7.9
80°	2.9	7.9	8.6	7.9	6.4
82.5°	2.9	7.2	7.9	7.2	5.7
85°	2.1	6.4	7.2	6.4	4.3
87.5°	2.1	6.4	7.2	5.7	3.6
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1057970
 CATALOG NUMBER: S122RDRP-S485D840-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	5.08	6.30	5.45	6.62	6.93	6.16	7.38	6.52	7.69	8.00
	3H	6.42	7.51	6.80	7.84	8.20	8.18	9.27	8.56	9.60	9.96
	4H	7.00	8.01	7.40	8.36	8.74	9.14	10.15	9.54	10.50	10.88
	6H	7.57	8.50	7.99	8.87	9.27	10.08	11.01	10.50	11.38	11.78
	8H	7.90	8.78	8.33	9.17	9.58	10.53	11.41	10.96	11.80	12.21
	12H	8.20	9.04	8.63	9.42	9.86	10.95	11.79	11.39	12.18	12.61
4H	2H	6.04	7.05	6.45	7.41	7.79	6.83	7.84	7.24	8.19	8.58
	3H	8.07	8.90	8.49	9.31	9.71	9.11	9.94	9.52	10.35	10.75
	4H	9.15	9.90	9.59	10.32	10.76	10.26	11.00	10.69	11.43	11.87
	6H	10.03	10.68	10.49	11.12	11.59	11.43	12.08	11.89	12.52	12.99
	8H	10.45	11.05	10.92	11.50	11.97	11.99	12.60	12.46	13.04	13.51
	12H	10.82	11.35	11.31	11.84	12.31	12.53	13.07	13.02	13.55	14.03
8H	4H	9.92	10.52	10.39	10.97	11.44	10.81	11.41	11.28	11.86	12.33
	6H	11.27	11.76	11.77	12.26	12.74	12.27	12.76	12.77	13.26	13.74
	8H	11.99	12.44	12.51	12.95	13.44	13.03	13.48	13.55	13.99	14.49
	12H	12.67	13.07	13.19	13.56	14.13	13.81	14.21	14.33	14.70	15.28
12H	4H	10.07	10.61	10.56	11.09	11.57	10.91	11.45	11.40	11.93	12.41
	6H	11.59	12.04	12.11	12.55	13.05	12.49	12.94	13.02	13.46	13.95
	8H	12.50	12.89	13.01	13.39	13.96	13.40	13.80	13.92	14.29	14.86