

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: P1058417

Luminaire Tested: S122RDR-H485D935-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058417
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H485D935-X4F0-XX-UDD-WVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

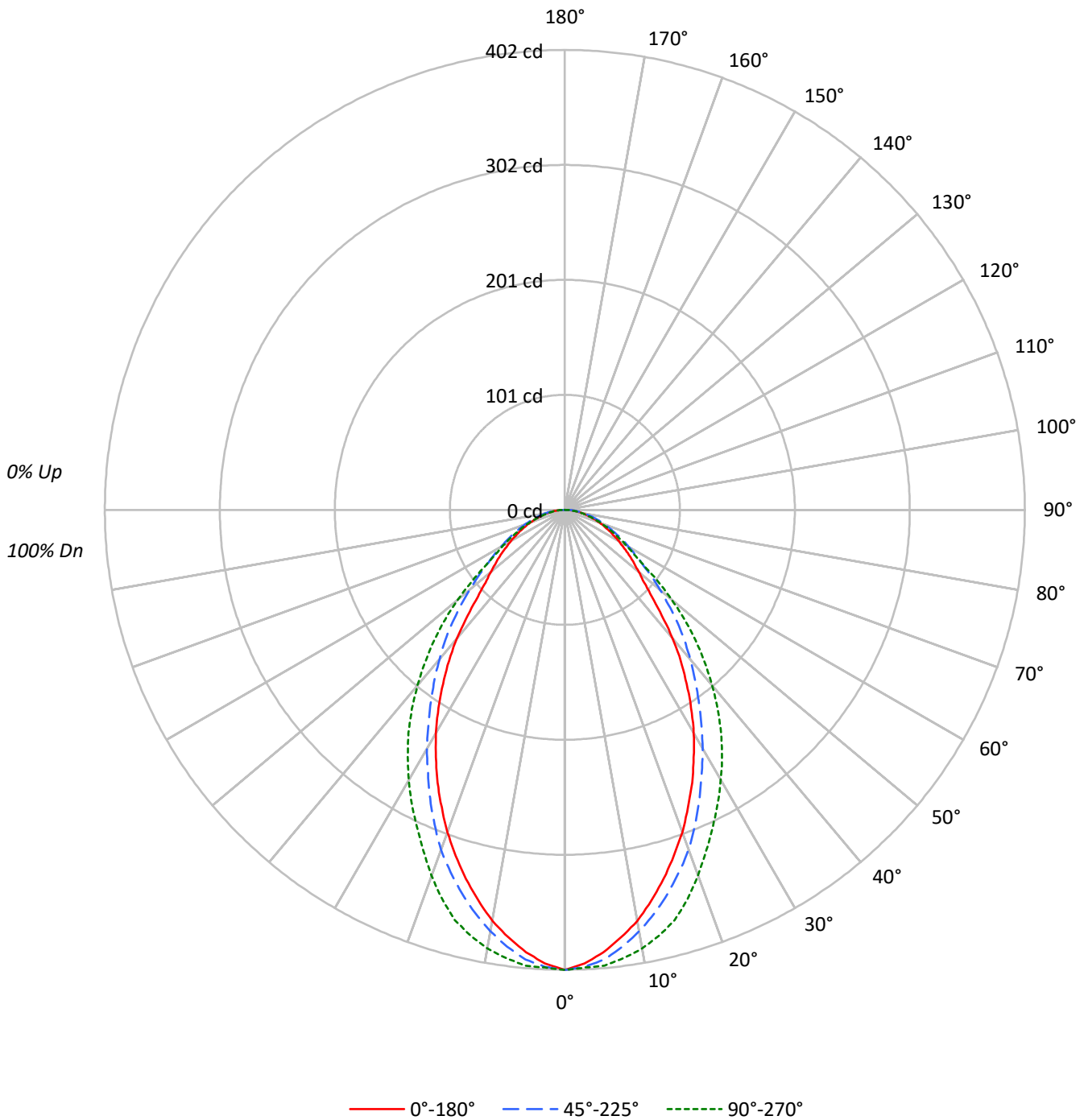
Lumens per Lamp: N/A
Luminaire Lumens: 654.8 lumens
Efficiency: N/A
Efficacy: 37.6 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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: P1058417

CATALOG NUMBER: S122RDR-H485D935-X4F0-XX-UDD-WVL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1058417

CATALOG NUMBER: S122RDR-H485D935-X4F0-XX-UDD-WVL-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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	79	84	80	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36
10	59	47	40	35	58	46	39	35	45	39	35	45	39	34	44	38	34	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7420	7420	7420
5°	7189	7307	7405
10°	6835	7010	7294
15°	6377	6635	7091
20°	5891	6211	6682
25°	5359	5668	6226
30°	4800	5135	5808
35°	4181	4589	5364
40°	3529	4105	4822
45°	2803	3625	4220
50°	2411	3118	3502
55°	2197	2667	2686
60°	2004	2369	2284
65°	1834	2139	2013
70°	1699	1985	1797
75°	1583	1875	1583
80°	1488	1796	1424
85°	1482	1863	1228

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4220 cd/sqm



TEST NUMBER: P1058417

CATALOG NUMBER: S122RDR-H485D935-X4F0-XX-UDD-WVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.1	5.7
10°-20°	98.1	15.0
20°-30°	129.1	19.7
30°-40°	129.9	19.8
40°-50°	105.2	16.1
50°-60°	72.5	11.1
60°-70°	47.5	7.2
70°-80°	26.4	4.0
80°-90°	8.9	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°	264.4	40.4
0°-40°	394.2	60.2
0°-60°	572.0	87.4
0°-90°	654.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	654.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	402	402	402	402	402	
5°	388	396	394	396	400	36
15°	334	342	347	360	371	94
25°	263	270	278	291	306	121
35°	186	194	204	222	238	116
45°	107	120	139	151	162	85
55°	68	76	83	85	84	61
65°	42	50	49	47	46	42
75°	22	27	26	23	22	24
85°	7	9	9	8	6	8
90°	0	0	0	0	0	



TEST NUMBER: P1058417

CATALOG NUMBER: S122RDR-H485D935-X4F0-XX-UDD-WVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	402.1	402.1	402.1	402.1	402.1
2.5°	396.9	403.9	399.8	399.8	400.4
5°	388.1	395.7	394.5	396.3	399.8
7.5°	377.0	385.2	385.2	390.4	395.1
10°	364.8	372.9	374.1	382.3	389.3
12.5°	349.6	357.8	361.3	371.8	381.1
15°	333.8	342.0	347.3	360.1	371.2
17.5°	316.9	325.1	332.1	345.5	356.6
20°	300.0	307.6	316.3	328.0	340.3
22.5°	281.3	289.5	297.6	308.7	322.7
25°	263.2	270.2	278.4	290.6	305.8
27.5°	244.0	251.5	259.1	273.7	289.5
30°	225.3	232.9	241.0	256.2	272.6
32.5°	205.4	213.6	221.8	238.7	255.6
35°	185.6	194.3	203.7	221.8	238.1
37.5°	166.3	175.7	186.8	205.4	219.4
40°	146.5	156.4	170.4	186.8	200.2
42.5°	125.5	137.7	154.7	168.7	180.9
45°	107.4	119.6	138.9	151.2	161.7
47.5°	94.0	103.9	122.6	133.1	141.8
50°	84.0	91.6	108.6	116.1	122.0
52.5°	75.9	83.5	95.1	100.4	102.1
55°	68.3	75.9	82.9	84.6	83.5
57.5°	60.7	68.9	73.0	71.2	71.2
60°	54.3	63.0	64.2	61.9	61.9
62.5°	47.9	56.6	56.6	53.7	53.7
65°	42.0	50.2	49.0	46.7	46.1
67.5°	36.8	44.4	42.6	40.3	39.7
70°	31.5	38.5	36.8	33.9	33.3
72.5°	26.8	33.3	30.9	28.6	27.4
75°	22.2	27.4	26.3	23.3	22.2
77.5°	18.1	22.2	21.0	18.7	17.5
80°	14.0	17.5	16.9	14.6	13.4
82.5°	10.5	13.4	12.8	11.1	9.3
85°	7.0	9.3	8.8	7.6	5.8
87.5°	3.5	6.4	5.8	5.3	2.9
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058417
 CATALOG NUMBER: S122RDR-H485D935-X4F0-XX-UDD-WVL-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	13.69	15.14	14.06	15.45	15.76	14.05	15.49	14.42	15.81	16.12
	3H	15.24	16.53	15.62	16.86	17.22	15.40	16.69	15.78	17.02	17.38
	4H	15.81	17.02	16.21	17.37	17.75	15.88	17.09	16.28	17.44	17.82
	6H	16.24	17.36	16.65	17.72	18.12	16.24	17.35	16.65	17.72	18.11
	8H	16.39	17.45	16.82	17.84	18.25	16.35	17.41	16.78	17.80	18.20
	12H	16.51	17.52	16.94	17.91	18.33	16.43	17.44	16.86	17.82	18.25
4H	2H	14.28	15.49	14.68	15.84	16.22	14.57	15.77	14.97	16.12	16.50
	3H	16.10	17.10	16.51	17.50	17.91	16.14	17.14	16.55	17.54	17.95
	4H	16.85	17.75	17.28	18.17	18.61	16.74	17.65	17.18	18.06	18.50
	6H	17.43	18.22	17.89	18.66	19.12	17.23	18.01	17.69	18.45	18.91
	8H	17.64	18.38	18.11	18.82	19.29	17.39	18.12	17.85	18.57	19.03
	12H	17.81	18.46	18.30	18.94	19.42	17.51	18.16	17.99	18.64	19.11
8H	4H	17.13	17.86	17.60	18.31	18.78	17.05	17.78	17.51	18.22	18.69
	6H	17.89	18.49	18.39	18.99	19.46	17.66	18.27	18.16	18.76	19.24
	8H	18.21	18.75	18.73	19.27	19.76	17.91	18.45	18.43	18.97	19.45
	12H	18.50	18.98	19.01	19.47	20.04	18.12	18.60	18.63	19.09	19.66
12H	4H	17.15	17.80	17.64	18.28	18.76	17.08	17.73	17.56	18.21	18.68
	6H	17.95	18.49	18.46	19.00	19.49	17.74	18.28	18.26	18.79	19.28
	8H	18.35	18.83	18.86	19.32	19.89	18.06	18.54	18.57	19.03	19.60