

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: P1059549

Luminaire Tested: S123RDR-H1165D935-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059549
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1165D935-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

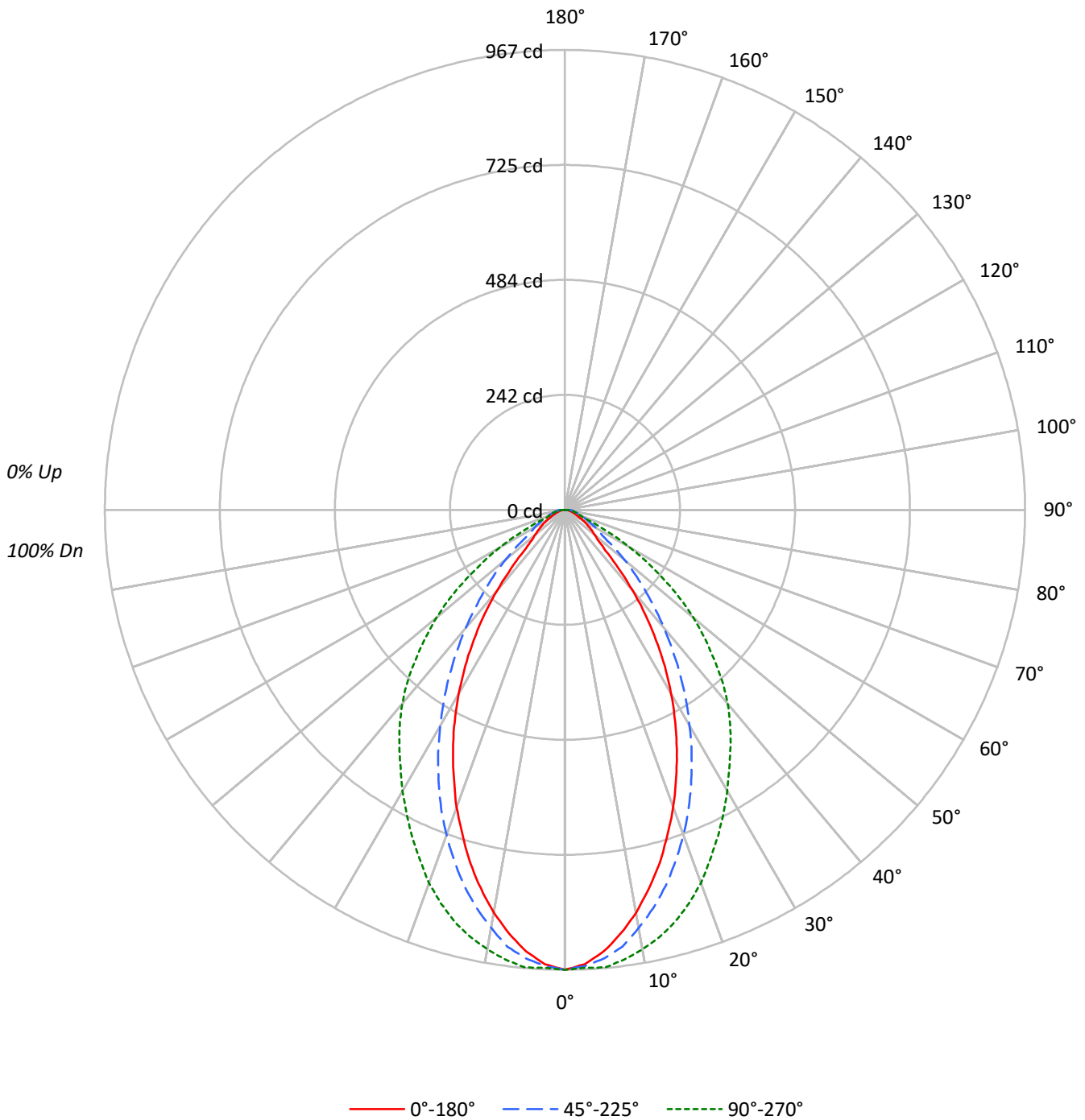
Lumens per Lamp: N/A
Luminaire Lumens: 1298.1 lumens
Efficiency: N/A
Efficacy: 35.6 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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: P1059549

CATALOG NUMBER: S123RDR-H1165D935-X4F0-XX-UDD-SVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1059549

CATALOG NUMBER: S123RDR-H1165D935-X4F0-XX-UDD-SVL-W

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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11355	11355	11355
5°	10988	11158	11384
10°	10255	10642	11187
15°	9346	9944	10894
20°	8316	9096	10433
25°	7206	8139	9836
30°	6043	7101	9251
35°	4786	6044	8696
40°	3388	4971	8156
45°	1994	3929	7342
50°	1492	2985	6430
55°	1255	2017	5165
60°	1015	1721	3668
65°	800	1470	1937
70°	700	1277	1195
75°	653	1198	1143
80°	649	1298	1136
85°	808	1940	1455

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7342 cd/sqm

TEST NUMBER: P1059549

CATALOG NUMBER: S123RDR-H1165D935-X4F0-XX-UDD-SVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.0	6.9
10°-20°	231.3	17.8
20°-30°	294.6	22.7
30°-40°	277.1	21.3
40°-50°	199.5	15.4
50°-60°	115.3	8.9
60°-70°	52.7	4.1
70°-80°	26.3	2.0
80°-90°	12.4	1.0
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°	614.8	47.4
0°-40°	891.9	68.7
0°-60°	1206.7	93.0
0°-90°	1298.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1298.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	967	967	967	967	967	
5°	932	948	947	956	966	87
15°	769	796	818	864	896	214
25°	556	585	628	698	759	254
35°	334	363	422	519	607	207
45°	120	150	237	356	442	102
55°	61	64	98	187	252	55
65°	29	41	53	59	70	29
75°	14	28	26	25	25	15
85°	6	13	14	13	11	7
90°	0	0	0	0	0	



TEST NUMBER: P1059549

CATALOG NUMBER: S123RDR-H1165D935-X4F0-XX-UDD-SVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	967.0	967.0	967.0	967.0	967.0
2.5°	956.2	968.2	959.8	961.0	963.4
5°	932.2	947.8	946.6	956.2	965.8
7.5°	898.5	916.5	926.2	940.6	953.8
10°	860.1	880.5	892.5	918.9	938.2
12.5°	815.6	842.1	857.7	892.5	920.1
15°	768.8	796.4	818.0	863.7	896.1
17.5°	715.9	746.0	773.6	827.6	867.3
20°	665.5	694.3	727.9	786.8	834.9
22.5°	610.2	641.5	679.9	742.4	796.4
25°	556.2	585.0	628.2	697.9	759.2
27.5°	502.1	530.9	576.6	653.5	720.7
30°	445.7	475.7	523.7	609.0	682.3
32.5°	390.4	419.2	473.3	565.8	642.7
35°	333.9	362.8	421.6	518.9	606.6
37.5°	278.7	308.7	371.2	480.5	570.6
40°	221.0	253.5	324.3	440.9	532.1
42.5°	167.0	201.8	277.5	400.0	490.1
45°	120.1	150.2	236.6	355.6	442.1
47.5°	93.7	109.3	199.4	309.9	397.6
50°	81.7	84.1	163.4	267.9	352.0
52.5°	70.9	73.3	128.5	228.2	303.9
55°	61.3	63.7	98.5	187.4	252.3
57.5°	51.7	55.3	81.7	149.0	203.0
60°	43.2	48.0	73.3	114.1	156.2
62.5°	34.8	43.2	62.5	84.1	111.7
65°	28.8	40.8	52.9	58.9	69.7
67.5°	24.0	37.2	44.4	42.0	40.8
70°	20.4	33.6	37.2	33.6	34.8
72.5°	16.8	31.2	31.2	28.8	28.8
75°	14.4	27.6	26.4	25.2	25.2
77.5°	12.0	24.0	22.8	21.6	20.4
80°	9.6	19.2	19.2	18.0	16.8
82.5°	8.4	15.6	15.6	15.6	13.2
85°	6.0	13.2	14.4	13.2	10.8
87.5°	4.8	12.0	12.0	10.8	7.2
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059549
 CATALOG NUMBER: S123RDR-H1165D935-X4F0-XX-UDD-SVL-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	8.42	9.74	8.78	10.05	10.36	15.78	17.10	16.14	17.41	17.72
	3H	9.80	10.97	10.18	11.30	11.67	16.01	17.18	16.39	17.51	17.87
	4H	10.35	11.44	10.76	11.79	12.18	16.12	17.21	16.52	17.56	17.94
	6H	10.79	11.79	11.20	12.16	12.55	16.23	17.24	16.65	17.61	18.00
	8H	10.96	11.91	11.39	12.30	12.71	16.29	17.24	16.72	17.63	18.03
	12H	11.12	12.03	11.55	12.41	12.84	16.35	17.25	16.78	17.64	18.07
4H	2H	9.52	10.61	9.92	10.96	11.34	15.73	16.83	16.14	17.18	17.56
	3H	11.17	12.07	11.59	12.47	12.87	16.09	16.99	16.51	17.39	17.79
	4H	11.98	12.78	12.42	13.20	13.65	16.29	17.09	16.72	17.51	17.95
	6H	12.62	13.31	13.08	13.75	14.22	16.52	17.21	16.98	17.65	18.12
	8H	12.85	13.50	13.32	13.95	14.42	16.62	17.27	17.09	17.71	18.18
	12H	13.07	13.64	13.55	14.12	14.59	16.75	17.32	17.24	17.80	18.28
8H	4H	12.42	13.07	12.89	13.52	13.99	16.33	16.97	16.80	17.42	17.89
	6H	13.33	13.86	13.84	14.36	14.84	16.66	17.18	17.16	17.68	18.16
	8H	13.75	14.23	14.27	14.74	15.24	16.84	17.32	17.37	17.84	18.33
	12H	14.17	14.59	14.68	15.09	15.66	17.09	17.52	17.61	18.01	18.58
12H	4H	12.48	13.05	12.97	13.54	14.01	16.32	16.89	16.80	17.37	17.85
	6H	13.47	13.95	13.99	14.46	14.95	16.67	17.15	17.19	17.66	18.15
	8H	14.01	14.43	14.52	14.92	15.49	16.93	17.35	17.44	17.84	18.41