

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: P1059810

Luminaire Tested: S123RDR-H775D950-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059810
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-H775D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

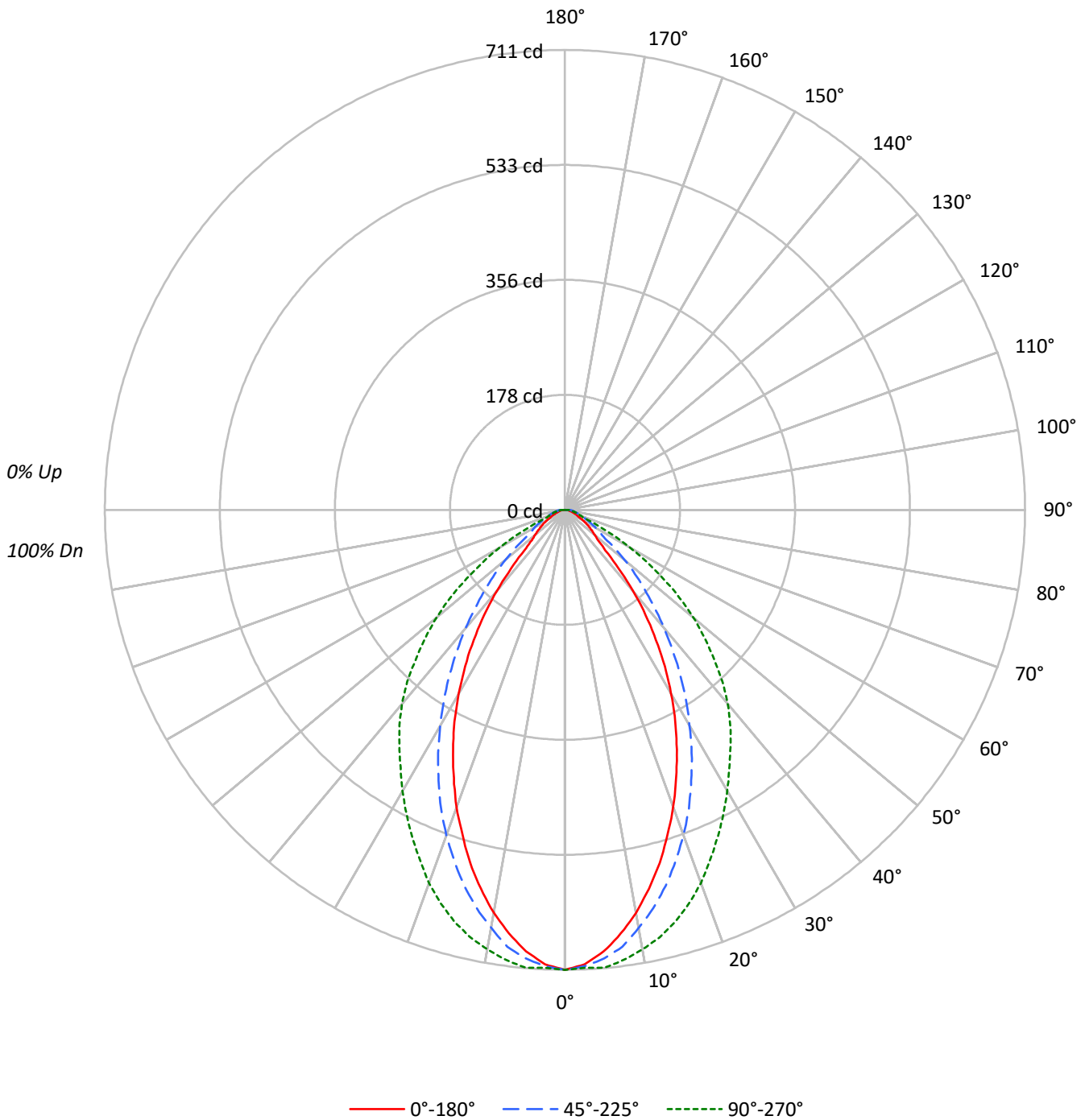
Lumens per Lamp: N/A
Luminaire Lumens: 954.7 lumens
Efficiency: N/A
Efficacy: 40.6 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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: P1059810

CATALOG NUMBER: S123RDR-H775D950-X4F0-XX-UDD-SVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1059810

CATALOG NUMBER: S123RDR-H775D950-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	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	102	99	97	98	96	94	94	93	91	89				89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64				64
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58				58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52				52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44				44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40				40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8351	8351	8351
5°	8081	8206	8373
10°	7543	7827	8227
15°	6873	7313	8012
20°	6116	6690	7673
25°	5299	5987	7235
30°	4445	5223	6804
35°	3521	4445	6396
40°	2492	3656	6000
45°	1466	2889	5399
50°	1098	2196	4730
55°	923	1482	3798
60°	747	1266	2698
65°	589	1081	1423
70°	515	941	879
75°	481	880	844
80°	480	953	839
85°	593	1428	1078

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5399 cd/sqm



TEST NUMBER: P1059810

CATALOG NUMBER: S123RDR-H775D950-X4F0-XX-UDD-SVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.4	6.9
10°-20°	170.1	17.8
20°-30°	216.6	22.7
30°-40°	203.8	21.3
40°-50°	146.8	15.4
50°-60°	84.8	8.9
60°-70°	38.7	4.1
70°-80°	19.4	2.0
80°-90°	9.1	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°	452.2	47.4
0°-40°	656.0	68.7
0°-60°	887.5	93.0
0°-90°	954.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	954.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	711	711	711	711	711	
5°	686	697	696	703	710	64
15°	565	586	602	635	659	158
25°	409	430	462	513	558	187
35°	246	267	310	382	446	152
45°	88	110	174	262	325	75
55°	45	47	72	138	186	40
65°	21	30	39	43	51	22
75°	11	20	19	19	19	11
85°	4	10	11	10	8	5
90°	0	0	0	0	0	



TEST NUMBER: P1059810

CATALOG NUMBER: S123RDR-H775D950-X4F0-XX-UDD-SVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	711.2	711.2	711.2	711.2	711.2
2.5°	703.2	712.1	705.9	706.8	708.5
5°	685.6	697.1	696.2	703.2	710.3
7.5°	660.8	674.1	681.2	691.8	701.5
10°	632.6	647.6	656.4	675.9	690.0
12.5°	599.9	619.3	630.8	656.4	676.7
15°	565.4	585.7	601.6	635.2	659.1
17.5°	526.6	548.6	569.0	608.7	637.9
20°	489.4	510.6	535.4	578.7	614.0
22.5°	448.8	471.8	500.0	546.0	585.7
25°	409.0	430.3	462.1	513.3	558.4
27.5°	369.3	390.5	424.1	480.6	530.1
30°	327.8	349.9	385.2	447.9	501.8
32.5°	287.1	308.3	348.1	416.1	472.7
35°	245.6	266.8	310.1	381.7	446.2
37.5°	205.0	227.1	273.0	353.4	419.7
40°	162.6	186.4	238.5	324.2	391.4
42.5°	122.8	148.4	204.1	294.2	360.5
45°	88.3	110.4	174.0	261.5	325.1
47.5°	68.9	80.4	146.7	227.9	292.4
50°	60.1	61.8	120.2	197.0	258.9
52.5°	52.1	53.9	94.5	167.9	223.5
55°	45.1	46.8	72.4	137.8	185.5
57.5°	38.0	40.6	60.1	109.6	149.3
60°	31.8	35.3	53.9	83.9	114.9
62.5°	25.6	31.8	45.9	61.8	82.2
65°	21.2	30.0	38.9	43.3	51.2
67.5°	17.7	27.4	32.7	30.9	30.0
70°	15.0	24.7	27.4	24.7	25.6
72.5°	12.4	23.0	23.0	21.2	21.2
75°	10.6	20.3	19.4	18.6	18.6
77.5°	8.8	17.7	16.8	15.9	15.0
80°	7.1	14.1	14.1	13.3	12.4
82.5°	6.2	11.5	11.5	11.5	9.7
85°	4.4	9.7	10.6	9.7	8.0
87.5°	3.5	8.8	8.8	8.0	5.3
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059810
 CATALOG NUMBER: S123RDR-H775D950-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	7.34	8.66	7.70	8.97	9.29	14.71	16.03	15.07	16.34	16.66
	3H	8.73	9.90	9.11	10.23	10.59	14.94	16.11	15.32	16.44	16.80
	4H	9.28	10.37	9.69	10.73	11.11	15.05	16.14	15.46	16.50	16.88
	6H	9.72	10.72	10.13	11.09	11.48	15.17	16.17	15.58	16.54	16.94
	8H	9.90	10.85	10.33	11.24	11.64	15.22	16.17	15.65	16.56	16.97
	12H	10.05	10.96	10.48	11.34	11.77	15.28	16.19	15.71	16.57	17.00
4H	2H	8.44	9.53	8.84	9.88	10.27	14.67	15.76	15.07	16.11	16.49
	3H	10.11	11.00	10.52	11.40	11.81	15.03	15.92	15.44	16.32	16.73
	4H	10.92	11.72	11.35	12.13	12.58	15.22	16.02	15.66	16.44	16.89
	6H	11.55	12.24	12.01	12.69	13.15	15.45	16.14	15.92	16.59	17.06
	8H	11.79	12.43	12.26	12.88	13.35	15.56	16.20	16.03	16.65	17.12
	12H	12.00	12.57	12.49	13.05	13.53	15.69	16.26	16.17	16.74	17.21
8H	4H	11.36	12.00	11.83	12.45	12.92	15.26	15.91	15.73	16.36	16.83
	6H	12.27	12.80	12.77	13.29	13.78	15.59	16.12	16.09	16.62	17.10
	8H	12.69	13.17	13.21	13.68	14.17	15.78	16.26	16.30	16.77	17.26
	12H	13.11	13.53	13.62	14.02	14.59	16.03	16.45	16.55	16.95	17.52
12H	4H	11.42	11.99	11.90	12.47	12.94	15.25	15.82	15.74	16.31	16.78
	6H	12.40	12.88	12.92	13.39	13.89	15.61	16.08	16.13	16.60	17.09
	8H	12.94	13.36	13.46	13.86	14.43	15.86	16.29	16.38	16.78	17.35