

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: P1059809

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059809
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)
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-S
Description: DEFINE 3 SILVER 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

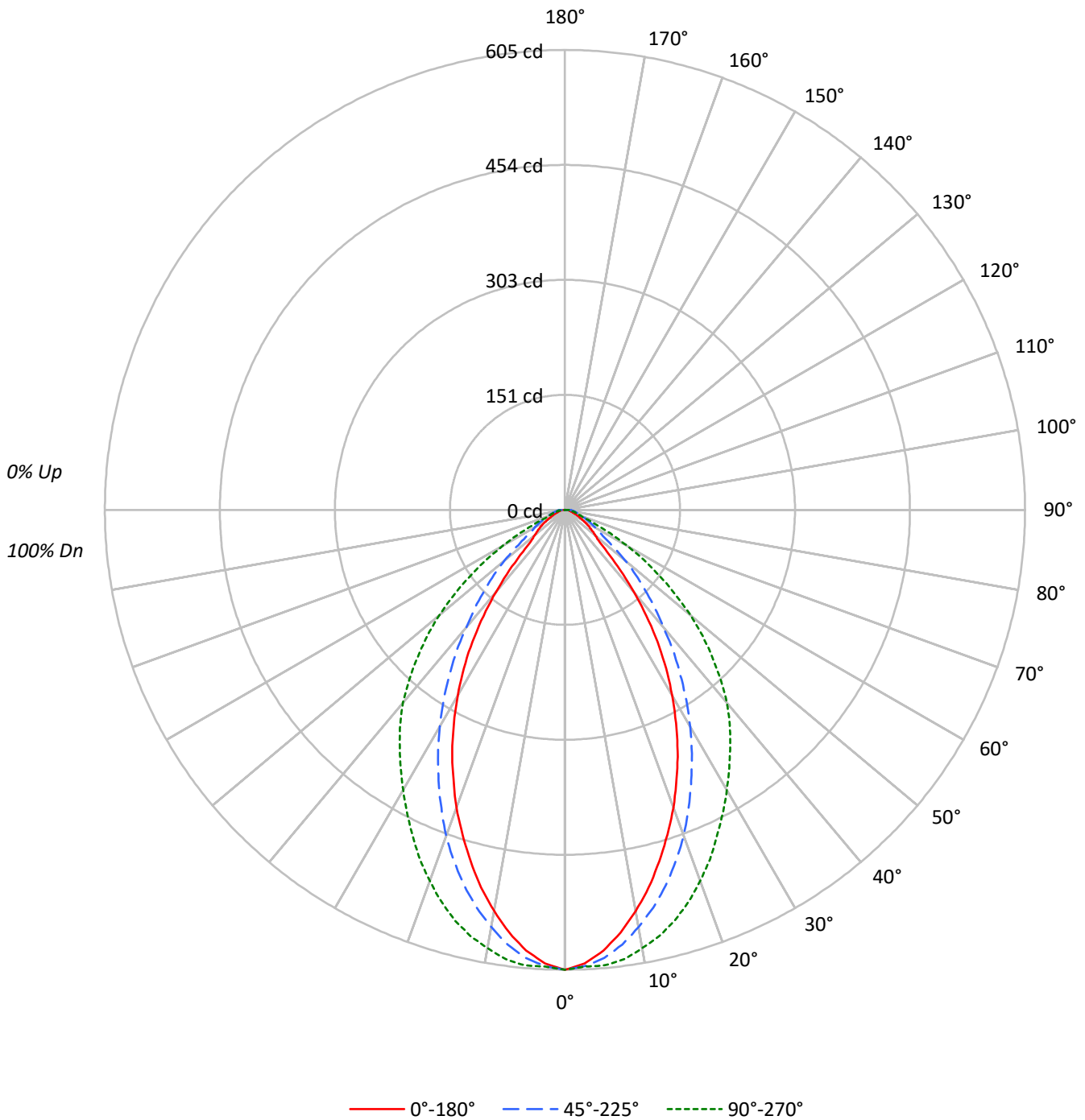
Lumens per Lamp: N/A
Luminaire Lumens: 810.3 lumens
Efficiency: N/A
Efficacy: 34.5 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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: P1059809

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

Luminous Intensity Polar Plot





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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	101	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	91	81	74	69	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	61	69	64	60	68	63	59	58				58
6	79	68	61	56	78	67	60	55	66	60	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	56	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	50	43	39	49	43	39	48	43	39	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7104	7104	7104
5°	6861	6976	7090
10°	6392	6645	6982
15°	5819	6217	6797
20°	5210	5706	6490
25°	4544	5093	6134
30°	3821	4468	5772
35°	3039	3786	5431
40°	2166	3087	5077
45°	1290	2479	4547
50°	952	1887	3937
55°	796	1284	3128
60°	643	1057	2198
65°	514	909	1178
70°	426	790	728
75°	399	762	681
80°	419	839	656
85°	593	1186	835

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4547 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.6	6.9
10°-20°	144.4	17.8
20°-30°	184.2	22.7
30°-40°	173.3	21.4
40°-50°	124.5	15.4
50°-60°	71.4	8.8
60°-70°	32.6	4.0
70°-80°	16.4	2.0
80°-90°	8.0	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°	384.1	47.4
0°-40°	557.4	68.8
0°-60°	753.3	93.0
0°-90°	810.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	810.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	605	605	605	605	605	
5°	582	594	592	596	602	54
15°	479	496	511	539	559	134
25°	351	367	393	435	473	160
35°	212	227	264	324	379	131
45°	78	94	149	220	274	65
55°	39	40	63	116	153	35
65°	18	26	33	36	42	19
75°	9	18	17	15	15	10
85°	4	9	9	8	6	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	605.0	605.0	605.0	605.0	605.0
2.5°	597.1	605.9	600.6	600.6	601.5
5°	582.1	593.6	591.8	596.2	601.5
7.5°	560.9	573.2	576.8	587.4	596.2
10°	536.1	550.3	557.3	574.1	585.6
12.5°	508.8	524.7	536.1	557.3	574.1
15°	478.7	495.5	511.4	538.8	559.1
17.5°	447.8	464.6	484.9	516.7	540.6
20°	416.9	433.7	456.6	490.2	519.4
22.5°	383.3	400.1	424.8	462.8	498.2
25°	350.7	366.6	393.1	435.4	473.4
27.5°	316.2	332.1	361.3	407.2	449.6
30°	281.8	297.7	329.5	378.9	425.7
32.5°	247.3	262.3	296.8	351.5	401.9
35°	212.0	227.0	264.1	324.2	378.9
37.5°	175.8	190.8	234.1	299.4	356.0
40°	141.3	158.1	201.4	274.7	331.2
42.5°	107.8	125.4	174.9	248.2	303.0
45°	77.7	94.5	149.3	219.9	273.8
47.5°	59.2	68.0	126.3	191.7	245.5
50°	52.1	53.0	103.3	166.1	215.5
52.5°	45.0	45.9	80.4	141.3	183.7
55°	38.9	39.7	62.7	115.7	152.8
57.5°	32.7	34.4	51.2	91.9	122.8
60°	27.4	30.9	45.0	69.8	93.6
62.5°	22.1	28.3	38.9	51.2	67.1
65°	18.5	25.6	32.7	36.2	42.4
67.5°	15.0	23.8	27.4	25.6	25.6
70°	12.4	21.2	23.0	21.2	21.2
72.5°	10.6	20.3	19.4	17.7	17.7
75°	8.8	17.7	16.8	15.0	15.0
77.5°	7.9	15.0	14.1	13.2	12.4
80°	6.2	12.4	12.4	11.5	9.7
82.5°	5.3	10.6	10.6	9.7	7.9
85°	4.4	8.8	8.8	7.9	6.2
87.5°	3.5	7.9	7.9	7.1	4.4
90°	0.0	0.0	0.0	0.0	0.0



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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	6.79	8.11	7.16	8.42	8.74	14.02	15.34	14.39	15.65	15.97
	3H	8.19	9.36	8.57	9.69	10.06	14.26	15.43	14.64	15.76	16.12
	4H	8.75	9.84	9.16	10.19	10.58	14.37	15.45	14.77	15.81	16.19
	6H	9.21	10.21	9.63	10.58	10.98	14.47	15.47	14.89	15.84	16.24
	8H	9.40	10.35	9.83	10.74	11.14	14.52	15.47	14.95	15.86	16.26
	12H	9.59	10.50	10.02	10.88	11.31	14.57	15.48	15.00	15.86	16.29
4H	2H	7.87	8.96	8.27	9.31	9.69	13.98	15.07	14.39	15.42	15.81
	3H	9.56	10.45	9.97	10.85	11.26	14.35	15.24	14.76	15.65	16.05
	4H	10.39	11.19	10.83	11.61	12.05	14.53	15.33	14.97	15.75	16.20
	6H	11.05	11.74	11.51	12.19	12.65	14.76	15.45	15.22	15.89	16.36
	8H	11.31	11.95	11.78	12.40	12.87	14.86	15.50	15.33	15.95	16.42
	12H	11.56	12.13	12.05	12.62	13.09	14.97	15.54	15.46	16.03	16.50
8H	4H	10.83	11.47	11.30	11.92	12.39	14.58	15.23	15.05	15.67	16.14
	6H	11.78	12.31	12.28	12.81	13.29	14.91	15.44	15.41	15.94	16.42
	8H	12.25	12.72	12.77	13.24	13.73	15.10	15.58	15.62	16.09	16.58
	12H	12.72	13.14	13.24	13.64	14.21	15.33	15.75	15.85	16.25	16.82
12H	4H	10.89	11.46	11.37	11.94	12.42	14.57	15.14	15.06	15.63	16.10
	6H	11.93	12.41	12.45	12.92	13.41	14.94	15.42	15.46	15.93	16.42
	8H	12.52	12.94	13.04	13.44	14.01	15.20	15.62	15.71	16.11	16.69