

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: P1059737

Luminaire Tested: S123RDR-H775D830-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059737
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-H775D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

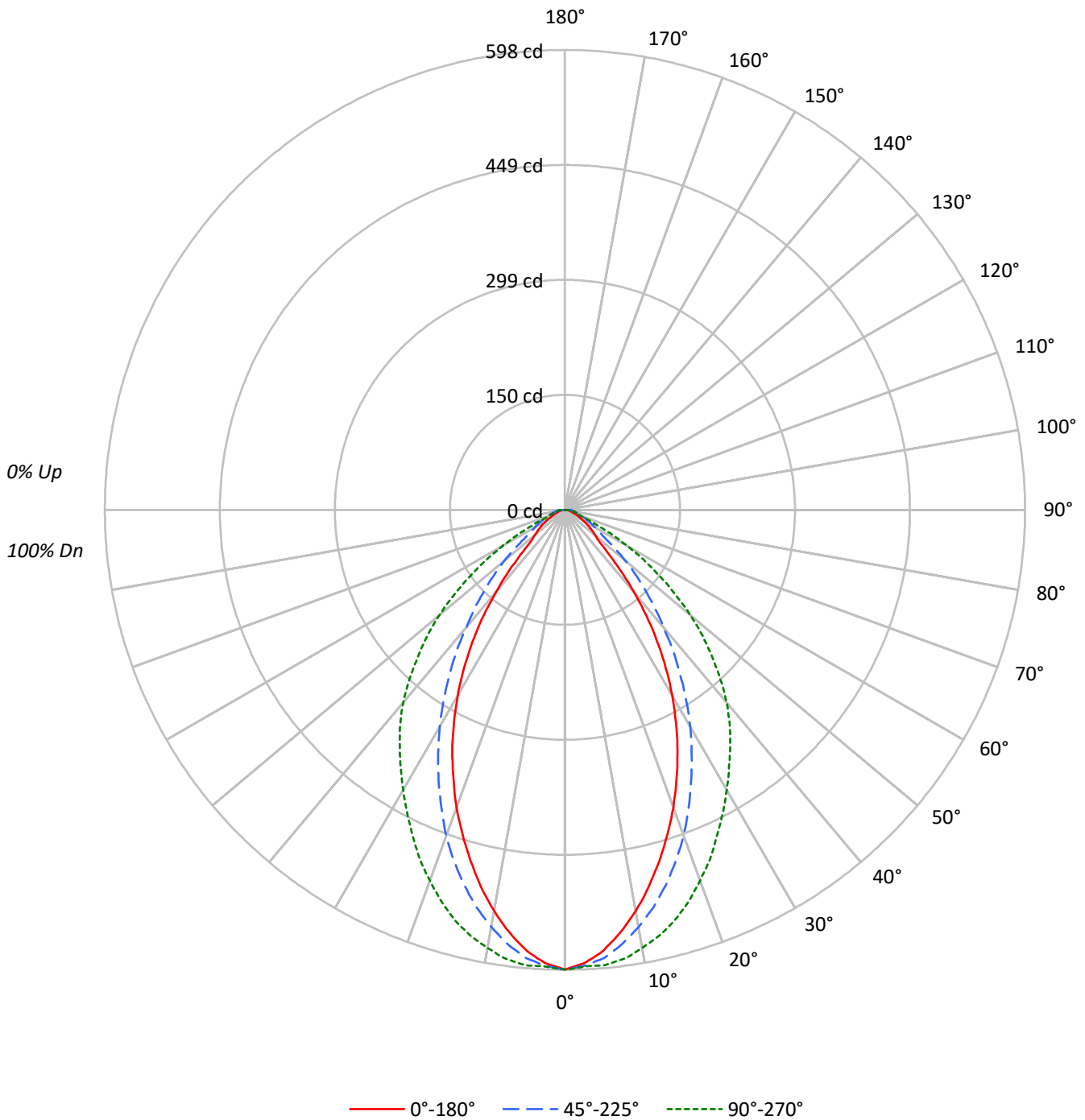
Lumens per Lamp: N/A
Luminaire Lumens: 800.6 lumens
Efficiency: N/A
Efficacy: 34.1 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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: P1059737

CATALOG NUMBER: S123RDR-H775D830-X4F0-XX-UDD-SVL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1059737

CATALOG NUMBER: S123RDR-H775D830-X4F0-XX-UDD-SVL-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	111	108	105	102	109	106	103	100	101	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	91	81	74	69	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	61	69	64	60	68	63	59	58
6	79	68	61	56	78	67	60	55	66	60	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	56	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	50	43	39	49	43	39	48	43	39	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7020	7020	7020
5°	6779	6892	7005
10°	6316	6565	6899
15°	5750	6143	6715
20°	5147	5638	6412
25°	4488	5031	6060
30°	3775	4413	5703
35°	3002	3740	5367
40°	2140	3050	5016
45°	1275	2449	4492
50°	941	1865	3889
55°	786	1269	3091
60°	636	1045	2172
65°	508	897	1164
70°	419	779	718
75°	395	753	671
80°	412	825	649
85°	593	1172	822

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4492 cd/sqm



TEST NUMBER: P1059737

CATALOG NUMBER: S123RDR-H775D830-X4F0-XX-UDD-SVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.9	6.9
10°-20°	142.7	17.8
20°-30°	181.9	22.7
30°-40°	171.2	21.4
40°-50°	123.0	15.4
50°-60°	70.5	8.8
60°-70°	32.2	4.0
70°-80°	16.2	2.0
80°-90°	7.9	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°	379.5	47.4
0°-40°	550.7	68.8
0°-60°	744.2	93.0
0°-90°	800.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	800.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	575	586	585	589	594	53
15°	473	490	505	532	552	132
25°	346	362	388	430	468	158
35°	209	224	261	320	374	130
45°	77	93	148	217	270	64
55°	38	39	62	114	151	34
65°	18	25	32	36	42	18
75°	9	18	17	15	15	10
85°	4	9	9	8	6	4
90°	0	0	0	0	0	



TEST NUMBER: P1059737

CATALOG NUMBER: S123RDR-H775D830-X4F0-XX-UDD-SVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	597.8	597.8	597.8	597.8	597.8
2.5°	589.9	598.6	593.4	593.4	594.3
5°	575.1	586.4	584.7	589.0	594.3
7.5°	554.1	566.4	569.8	580.3	589.0
10°	529.7	543.7	550.6	567.2	578.6
12.5°	502.6	518.4	529.7	550.6	567.2
15°	473.0	489.6	505.3	532.3	552.4
17.5°	442.4	459.0	479.1	510.5	534.1
20°	411.9	428.5	451.2	484.3	513.1
22.5°	378.7	395.3	419.7	457.3	492.2
25°	346.4	362.2	388.3	430.2	467.7
27.5°	312.4	328.1	356.9	402.3	444.2
30°	278.4	294.1	325.5	374.4	420.6
32.5°	244.3	259.2	293.2	347.3	397.1
35°	209.4	224.3	260.9	320.3	374.4
37.5°	173.7	188.5	231.3	295.8	351.7
40°	139.6	156.2	199.0	271.4	327.2
42.5°	106.5	123.9	172.8	245.2	299.3
45°	76.8	93.4	147.5	217.3	270.5
47.5°	58.5	67.2	124.8	189.4	242.6
50°	51.5	52.4	102.1	164.1	212.9
52.5°	44.5	45.4	79.4	139.6	181.5
55°	38.4	39.3	62.0	114.3	151.0
57.5°	32.3	34.0	50.6	90.8	121.3
60°	27.1	30.5	44.5	68.9	92.5
62.5°	21.8	27.9	38.4	50.6	66.3
65°	18.3	25.3	32.3	35.8	41.9
67.5°	14.8	23.6	27.1	25.3	25.3
70°	12.2	20.9	22.7	20.9	20.9
72.5°	10.5	20.1	19.2	17.5	17.5
75°	8.7	17.5	16.6	14.8	14.8
77.5°	7.9	14.8	14.0	13.1	12.2
80°	6.1	12.2	12.2	11.3	9.6
82.5°	5.2	10.5	10.5	9.6	7.9
85°	4.4	8.7	8.7	7.9	6.1
87.5°	3.5	7.9	7.9	7.0	4.4
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059737
 CATALOG NUMBER: S123RDR-H775D830-X4F0-XX-UDD-SVL-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	6.75	8.07	7.11	8.38	8.70	13.98	15.30	14.35	15.61	15.93
	3H	8.15	9.32	8.53	9.65	10.01	14.22	15.38	14.59	15.71	16.08
	4H	8.71	9.80	9.12	10.15	10.54	14.32	15.41	14.72	15.76	16.15
	6H	9.17	10.18	9.59	10.55	10.94	14.43	15.43	14.84	15.80	16.19
	8H	9.36	10.31	9.79	10.70	11.10	14.48	15.43	14.91	15.82	16.22
	12H	9.55	10.46	9.98	10.84	11.27	14.53	15.44	14.96	15.82	16.25
4H	2H	7.83	8.92	8.23	9.27	9.65	13.94	15.03	14.34	15.38	15.76
	3H	9.51	10.41	9.93	10.81	11.21	14.31	15.20	14.72	15.61	16.01
	4H	10.35	11.15	10.79	11.57	12.01	14.49	15.29	14.93	15.71	16.15
	6H	11.01	11.70	11.47	12.15	12.61	14.71	15.40	15.18	15.85	16.32
	8H	11.26	11.91	11.73	12.36	12.83	14.81	15.46	15.28	15.91	16.38
	12H	11.52	12.09	12.01	12.57	13.05	14.93	15.50	15.42	15.99	16.46
8H	4H	10.79	11.43	11.26	11.88	12.35	14.54	15.18	15.01	15.63	16.10
	6H	11.74	12.27	12.24	12.76	13.25	14.87	15.40	15.37	15.89	16.38
	8H	12.20	12.68	12.72	13.20	13.69	15.06	15.54	15.58	16.05	16.54
	12H	12.68	13.10	13.20	13.60	14.17	15.29	15.72	15.81	16.21	16.78
12H	4H	10.85	11.42	11.33	11.90	12.38	14.53	15.10	15.02	15.58	16.06
	6H	11.89	12.36	12.41	12.88	13.37	14.89	15.37	15.42	15.89	16.38
	8H	12.48	12.90	12.99	13.40	13.97	15.16	15.58	15.67	16.07	16.64