

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: P1059749

Luminaire Tested: S123RDR-H775D835-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059749
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H775D835-X4F0-XX-UDD-WVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

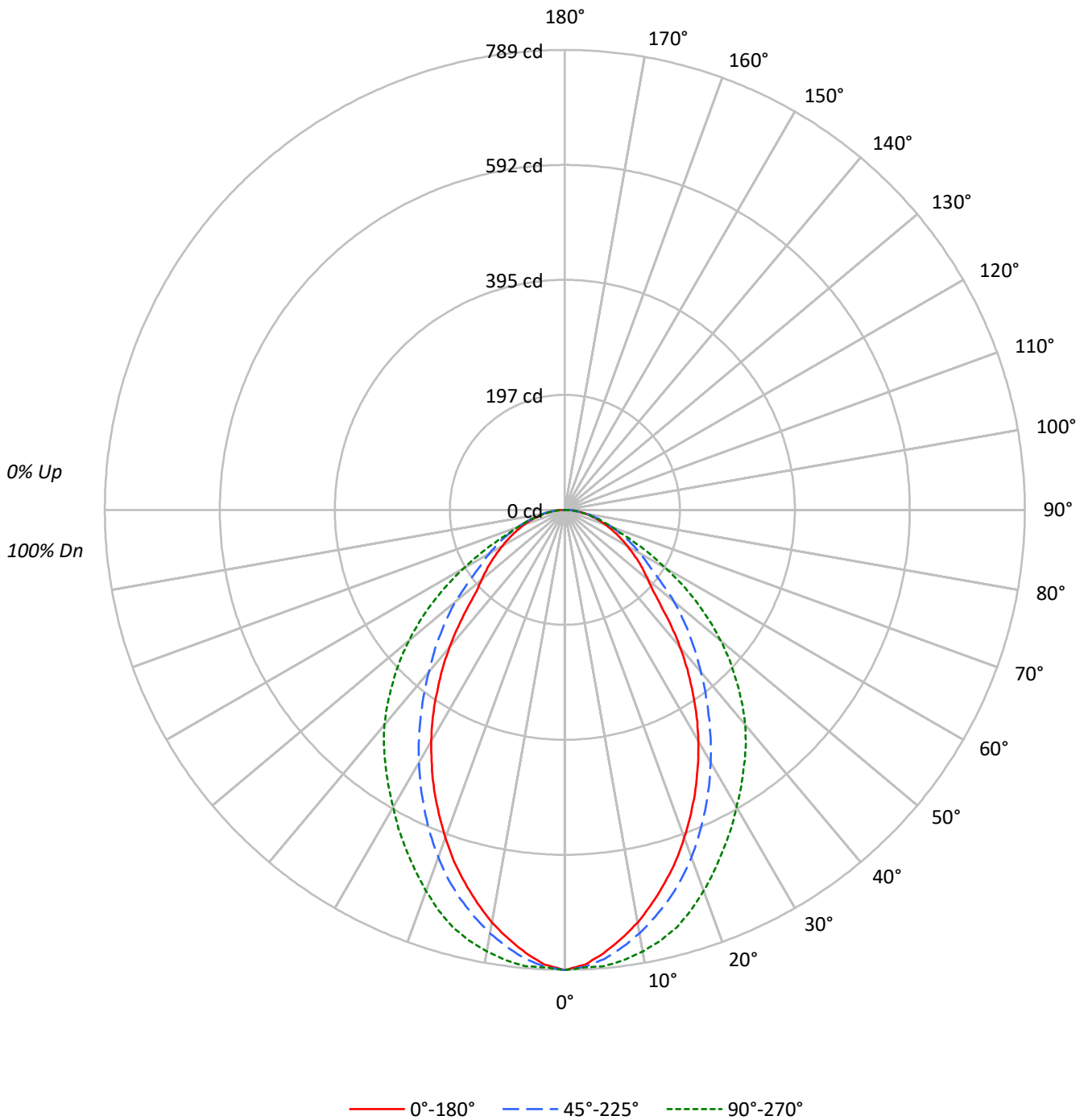
Lumens per Lamp: N/A
Luminaire Lumens: 1425.9 lumens
Efficiency: N/A
Efficacy: 60.7 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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: P1059749

CATALOG NUMBER: S123RDR-H775D835-X4F0-XX-UDD-WVL-S

Luminous Intensity Polar Plot



TEST NUMBER: P1059749

CATALOG NUMBER: S123RDR-H775D835-X4F0-XX-UDD-WVL-S

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	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	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87																												
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75																												
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65																												
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57																												
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51																												
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45																												
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41																												
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37																												
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34																												
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9269	9269	9269
5°	9000	9119	9261
10°	8573	8795	9169
15°	8055	8404	9012
20°	7481	7932	8696
25°	6871	7373	8334
30°	6211	6788	7981
35°	5479	6168	7681
40°	4709	5561	7376
45°	3873	5010	6915
50°	3398	4463	6374
55°	3145	3808	5646
60°	2891	3499	4673
65°	2701	3215	3676
70°	2541	2922	2922
75°	2391	2686	2518
80°	2252	2441	2130
85°	2115	2371	1617

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6915 cd/sqm



TEST NUMBER: P1059749

CATALOG NUMBER: S123RDR-H775D835-X4F0-XX-UDD-WVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.0	5.1
10°-20°	195.7	13.7
20°-30°	265.3	18.6
30°-40°	277.4	19.5
40°-50°	240.6	16.9
50°-60°	179.0	12.6
60°-70°	114.8	8.1
70°-80°	61.6	4.3
80°-90°	18.6	1.3
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°	534.0	37.4
0°-40°	811.4	56.9
0°-60°	1230.9	86.3
0°-90°	1425.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1425.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	789	789	789	789	789	
5°	764	776	774	779	786	71
15°	663	678	691	719	741	186
25°	530	547	569	607	643	243
35°	382	401	430	485	536	239
45°	233	251	302	366	416	183
55°	154	157	186	239	276	137
65°	97	106	116	123	132	97
75°	53	61	59	56	56	56
85°	16	19	18	15	12	18
90°	0	0	0	0	0	



TEST NUMBER: P1059749

CATALOG NUMBER: S123RDR-H775D835-X4F0-XX-UDD-WVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	789.4	789.4	789.4	789.4	789.4
2.5°	781.0	792.2	784.8	784.8	785.7
5°	763.5	776.4	773.6	779.2	785.7
7.5°	742.2	756.1	757.0	769.9	779.2
10°	719.0	732.9	737.6	756.1	769.0
12.5°	691.3	707.0	715.3	738.5	757.0
15°	662.6	678.3	691.3	719.0	741.3
17.5°	632.1	647.8	664.4	695.9	720.0
20°	598.7	615.4	634.8	666.3	695.9
22.5°	564.5	582.1	602.4	636.7	670.0
25°	530.3	546.9	569.1	607.1	643.2
27.5°	494.2	511.8	534.9	576.5	617.3
30°	458.1	475.7	500.6	545.1	588.6
32.5°	421.1	438.6	465.5	515.5	562.7
35°	382.2	400.7	430.3	484.9	535.8
37.5°	345.2	362.8	396.1	456.2	509.9
40°	307.2	325.7	362.8	427.5	481.2
42.5°	270.2	288.7	332.2	397.0	449.8
45°	233.2	250.8	301.7	366.5	416.4
47.5°	204.5	217.5	273.0	334.1	384.0
50°	186.0	190.6	244.3	302.6	348.9
52.5°	169.4	173.1	212.8	271.1	312.8
55°	153.6	157.3	186.0	238.8	275.8
57.5°	137.9	142.5	165.6	205.4	238.8
60°	123.1	128.6	149.0	175.8	199.0
62.5°	110.1	116.6	132.3	149.0	164.7
65°	97.2	105.5	115.7	123.1	132.3
67.5°	85.1	94.4	99.9	101.8	102.7
70°	74.0	83.3	85.1	85.1	85.1
72.5°	62.9	73.1	71.3	70.3	69.4
75°	52.7	61.1	59.2	56.5	55.5
77.5°	42.6	50.0	47.2	45.3	42.6
80°	33.3	38.9	36.1	34.2	31.5
82.5°	25.0	28.7	25.9	24.1	21.3
85°	15.7	19.4	17.6	14.8	12.0
87.5°	8.3	11.1	9.3	8.3	4.6
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059749
 CATALOG NUMBER: S123RDR-H775D835-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	14.52	16.00	14.89	16.32	16.63	17.28	18.76	17.64	19.07	19.39
	3H	16.23	17.56	16.61	17.89	18.25	18.30	19.63	18.68	19.95	20.32
	4H	16.89	18.14	17.29	18.49	18.87	18.66	19.91	19.06	20.26	20.64
	6H	17.39	18.54	17.81	18.91	19.30	18.92	20.07	19.33	20.44	20.83
	8H	17.57	18.67	18.00	19.06	19.46	18.99	20.08	19.42	20.47	20.88
	12H	17.70	18.75	18.13	19.13	19.56	19.03	20.07	19.46	20.45	20.88
4H	2H	15.30	16.54	15.70	16.89	17.27	17.55	18.79	17.95	19.14	19.52
	3H	17.22	18.26	17.63	18.66	19.06	18.80	19.84	19.21	20.24	20.64
	4H	18.03	18.96	18.47	19.38	19.82	19.29	20.22	19.72	20.64	21.08
	6H	18.67	19.48	19.13	19.93	20.39	19.67	20.48	20.13	20.92	21.38
	8H	18.90	19.66	19.37	20.10	20.57	19.78	20.54	20.25	20.98	21.45
	12H	19.08	19.75	19.56	20.23	20.70	19.85	20.53	20.34	21.01	21.48
8H	4H	18.35	19.11	18.82	19.55	20.02	19.48	20.24	19.95	20.68	21.15
	6H	19.15	19.77	19.64	20.26	20.74	19.97	20.59	20.47	21.09	21.56
	8H	19.47	20.03	19.99	20.55	21.03	20.15	20.71	20.66	21.22	21.71
	12H	19.75	20.25	20.26	20.74	21.31	20.28	20.77	20.79	21.27	21.83
12H	4H	18.38	19.05	18.86	19.53	20.00	19.50	20.17	19.98	20.65	21.12
	6H	19.20	19.76	19.72	20.27	20.76	20.01	20.57	20.52	21.08	21.57
	8H	19.59	20.09	20.10	20.58	21.15	20.24	20.73	20.75	21.22	21.79