

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: P1059740

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059740
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-H775D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

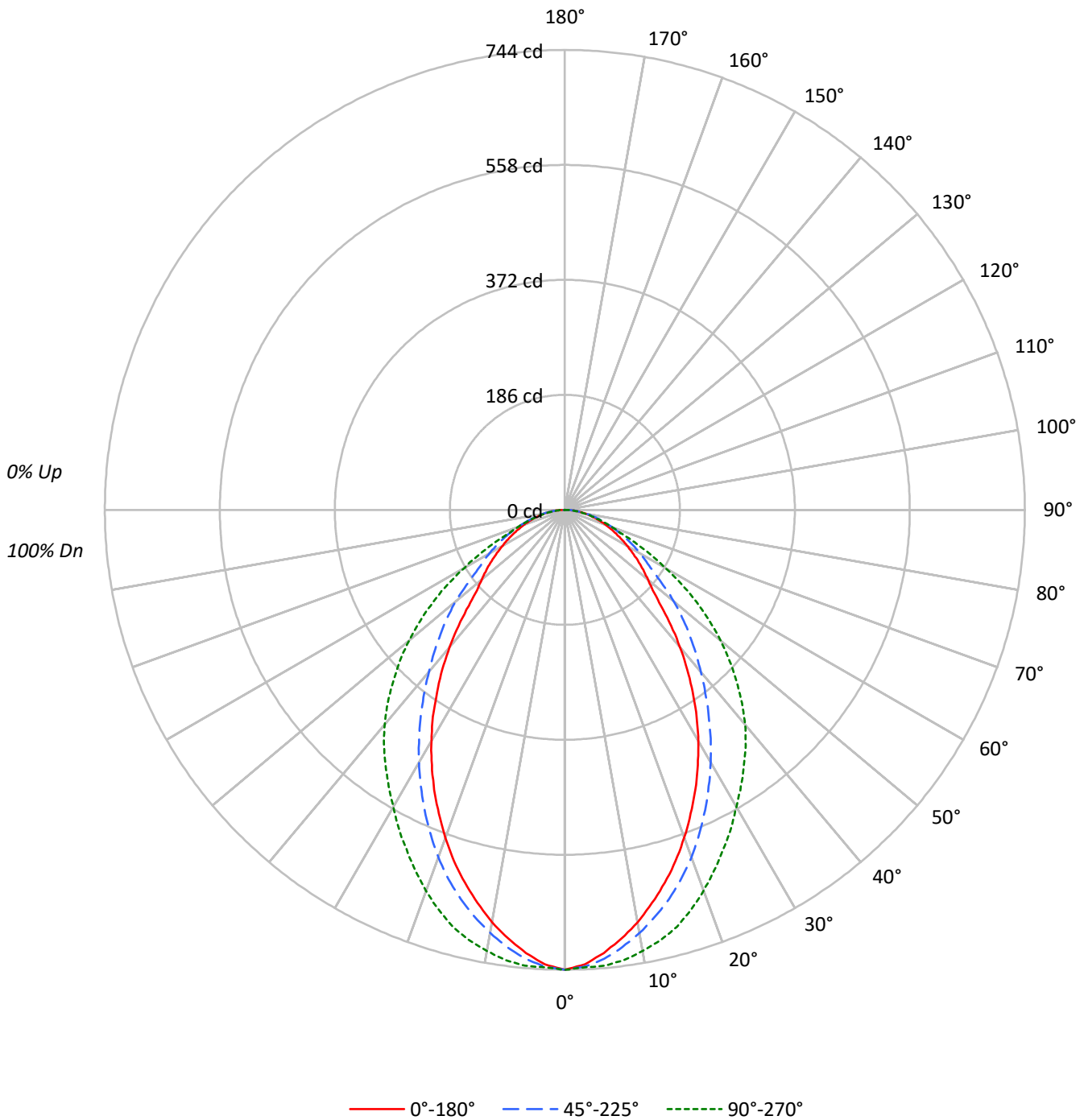
Lumens per Lamp: N/A
Luminaire Lumens: 1343.9 lumens
Efficiency: N/A
Efficacy: 57.2 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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: P1059740

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

Luminous Intensity Polar Plot





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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	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°	8736	8736	8736
5°	8482	8595	8728
10°	8081	8289	8642
15°	7592	7921	8494
20°	7052	7478	8196
25°	6476	6950	7854
30°	5855	6398	7521
35°	5163	5814	7239
40°	4439	5241	6953
45°	3650	4723	6518
50°	3202	4207	6007
55°	2964	3589	5321
60°	2724	3297	4403
65°	2545	3029	3465
70°	2396	2753	2753
75°	2255	2532	2373
80°	2123	2299	2008
85°	1994	2237	1522

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6518 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.8	5.1
10°-20°	184.4	13.7
20°-30°	250.1	18.6
30°-40°	261.4	19.5
40°-50°	226.8	16.9
50°-60°	168.7	12.6
60°-70°	108.2	8.1
70°-80°	58.0	4.3
80°-90°	17.5	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°	503.3	37.4
0°-40°	764.7	56.9
0°-60°	1160.1	86.3
0°-90°	1343.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1343.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	744	744	744	744	744	
5°	720	732	729	734	740	67
15°	624	639	652	678	699	175
25°	500	516	536	572	606	229
35°	360	378	406	457	505	225
45°	220	236	284	345	392	173
55°	145	148	175	225	260	130
65°	92	99	109	116	125	91
75°	50	58	56	53	52	53
85°	15	18	17	14	11	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	744.0	744.0	744.0	744.0	744.0
2.5°	736.2	746.6	739.7	739.7	740.5
5°	719.6	731.8	729.2	734.4	740.5
7.5°	699.5	712.6	713.5	725.7	734.4
10°	677.7	690.8	695.2	712.6	724.8
12.5°	651.6	666.4	674.2	696.0	713.5
15°	624.5	639.4	651.6	677.7	698.7
17.5°	595.7	610.6	626.3	655.9	678.6
20°	564.3	580.0	598.4	628.0	655.9
22.5°	532.1	548.6	567.8	600.1	631.5
25°	499.8	515.5	536.4	572.2	606.2
27.5°	465.8	482.3	504.2	543.4	581.8
30°	431.8	448.3	471.9	513.8	554.7
32.5°	396.9	413.4	438.7	485.8	530.3
35°	360.2	377.7	405.6	457.1	505.0
37.5°	325.3	341.9	373.3	430.0	480.6
40°	289.6	307.0	341.9	403.0	453.6
42.5°	254.7	272.1	313.1	374.2	423.9
45°	219.8	236.4	284.4	345.4	392.5
47.5°	192.8	205.0	257.3	314.9	362.0
50°	175.3	179.7	230.3	285.2	328.8
52.5°	159.6	163.1	200.6	255.6	294.8
55°	144.8	148.3	175.3	225.0	259.9
57.5°	130.0	134.3	156.1	193.6	225.0
60°	116.0	121.2	140.4	165.7	187.5
62.5°	103.8	109.9	124.7	140.4	155.3
65°	91.6	99.4	109.0	116.0	124.7
67.5°	80.2	89.0	94.2	95.9	96.8
70°	69.8	78.5	80.2	80.2	80.2
72.5°	59.3	68.9	67.2	66.3	65.4
75°	49.7	57.6	55.8	53.2	52.3
77.5°	40.1	47.1	44.5	42.7	40.1
80°	31.4	36.6	34.0	32.3	29.7
82.5°	23.6	27.0	24.4	22.7	20.1
85°	14.8	18.3	16.6	14.0	11.3
87.5°	7.9	10.5	8.7	7.9	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	14.32	15.80	14.68	16.11	16.43	17.07	18.55	17.44	18.87	19.18
	3H	16.03	17.36	16.40	17.68	18.05	18.09	19.42	18.47	19.75	20.11
	4H	16.69	17.93	17.09	18.28	18.66	18.46	19.70	18.86	20.05	20.43
	6H	17.19	18.34	17.60	18.70	19.10	18.71	19.86	19.12	20.23	20.62
	8H	17.37	18.46	17.79	18.85	19.25	18.78	19.88	19.21	20.27	20.67
	12H	17.49	18.54	17.92	18.92	19.35	18.82	19.87	19.25	20.25	20.68
4H	2H	15.09	16.34	15.49	16.69	17.07	17.34	18.59	17.74	18.94	19.32
	3H	17.02	18.05	17.43	18.45	18.85	18.60	19.63	19.01	20.03	20.43
	4H	17.83	18.76	18.26	19.17	19.61	19.08	20.01	19.52	20.43	20.87
	6H	18.47	19.28	18.93	19.72	20.18	19.46	20.27	19.92	20.72	21.18
	8H	18.70	19.45	19.16	19.90	20.36	19.58	20.33	20.04	20.78	21.24
	12H	18.87	19.54	19.35	20.02	20.49	19.65	20.32	20.13	20.80	21.27
8H	4H	18.15	18.90	18.61	19.35	19.81	19.27	20.03	19.74	20.47	20.94
	6H	18.94	19.56	19.44	20.06	20.53	19.76	20.39	20.26	20.88	21.36
	8H	19.27	19.83	19.78	20.34	20.83	19.94	20.50	20.45	21.01	21.50
	12H	19.54	20.04	20.05	20.53	21.10	20.07	20.57	20.58	21.06	21.63
12H	4H	18.17	18.85	18.65	19.32	19.80	19.29	19.96	19.77	20.44	20.91
	6H	18.99	19.55	19.51	20.07	20.55	19.80	20.36	20.31	20.87	21.36
	8H	19.39	19.88	19.90	20.38	20.94	20.03	20.53	20.54	21.02	21.58