

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: P1059416

Luminaire Tested: S123RDR-H1000D830-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059416
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-H1000D830-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

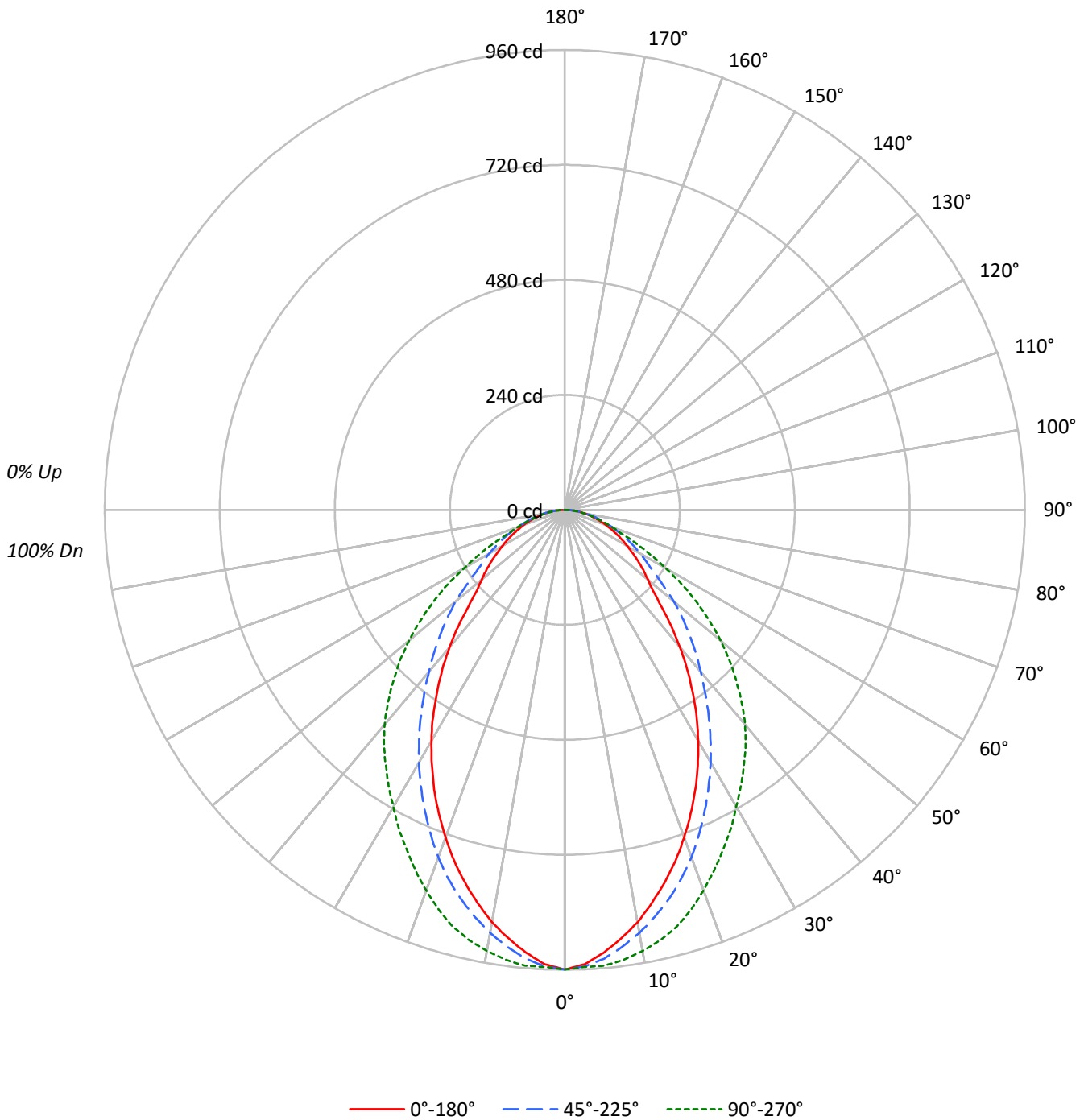
Lumens per Lamp: N/A
Luminaire Lumens: 1733.2 lumens
Efficiency: N/A
Efficacy: 55.6 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87			87																
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75			75																
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65			65																
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57			57																
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51			51																
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45			45																
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41			41																
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37			37																
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34			34																
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31			31																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11267	11267	11267
5°	10939	11085	11257
10°	10421	10689	11146
15°	9791	10215	10953
20°	9095	9643	10570
25°	8352	8963	10129
30°	7550	8252	9700
35°	6660	7499	9336
40°	5725	6760	8966
45°	4708	6090	8406
50°	4130	5426	7747
55°	3822	4629	6862
60°	3513	4253	5679
65°	3281	3907	4471
70°	3090	3553	3553
75°	2908	3267	3062
80°	2739	2969	2583
85°	2573	2883	1967

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8406 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.7	5.1
10°-20°	237.8	13.7
20°-30°	322.5	18.6
30°-40°	337.2	19.5
40°-50°	292.4	16.9
50°-60°	217.5	12.6
60°-70°	139.6	8.1
70°-80°	74.8	4.3
80°-90°	22.6	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°	649.1	37.4
0°-40°	986.2	56.9
0°-60°	1496.2	86.3
0°-90°	1733.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1733.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	960	960	960	960	960	
5°	928	944	940	947	955	87
15°	805	824	840	874	901	226
25°	645	665	692	738	782	296
35°	465	487	523	589	651	290
45°	284	305	367	446	506	223
55°	187	191	226	290	335	167
65°	118	128	141	150	161	118
75°	64	74	72	69	68	68
85°	19	24	21	18	15	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	959.5	959.5	959.5	959.5	959.5
2.5°	949.4	962.9	953.9	953.9	955.0
5°	928.0	943.8	940.4	947.1	955.0
7.5°	902.1	919.0	920.1	935.9	947.1
10°	874.0	890.9	896.5	919.0	934.8
12.5°	840.3	859.4	869.5	897.7	920.1
15°	805.4	824.5	840.3	874.0	901.0
17.5°	768.3	787.4	807.7	845.9	875.2
20°	727.8	748.0	771.7	809.9	845.9
22.5°	686.2	707.5	732.3	773.9	814.4
25°	644.6	664.8	691.8	737.9	781.8
27.5°	600.7	622.1	650.2	700.8	750.3
30°	556.8	578.2	608.6	662.6	715.4
32.5°	511.8	533.2	565.8	626.6	683.9
35°	464.6	487.1	523.1	589.4	651.3
37.5°	419.6	441.0	481.4	554.6	619.8
40°	373.5	396.0	441.0	519.7	584.9
42.5°	328.5	351.0	403.8	482.6	546.7
45°	283.5	304.8	366.7	445.5	506.2
47.5°	248.6	264.3	331.8	406.1	466.8
50°	226.1	231.7	297.0	367.8	424.1
52.5°	205.9	210.4	258.7	329.6	380.2
55°	186.7	191.2	226.1	290.2	335.2
57.5°	167.6	173.2	201.4	249.7	290.2
60°	149.6	156.4	181.1	213.7	241.8
62.5°	133.9	141.7	160.9	181.1	200.2
65°	118.1	128.2	140.6	149.6	160.9
67.5°	103.5	114.7	121.5	123.7	124.9
70°	90.0	101.2	103.5	103.5	103.5
72.5°	76.5	88.9	86.6	85.5	84.4
75°	64.1	74.2	72.0	68.6	67.5
77.5°	51.7	60.7	57.4	55.1	51.7
80°	40.5	47.2	43.9	41.6	38.2
82.5°	30.4	34.9	31.5	29.2	25.9
85°	19.1	23.6	21.4	18.0	14.6
87.5°	10.1	13.5	11.2	10.1	5.6
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	15.20	16.68	15.56	17.00	17.31	17.96	19.44	18.32	19.75	20.07
	3H	16.91	18.24	17.29	18.57	18.93	18.98	20.31	19.36	20.63	21.00
	4H	17.57	18.82	17.97	19.16	19.54	19.34	20.59	19.74	20.94	21.32
	6H	18.07	19.22	18.48	19.59	19.98	19.60	20.75	20.01	21.11	21.51
	8H	18.25	19.34	18.68	19.73	20.14	19.67	20.76	20.09	21.15	21.55
	12H	18.38	19.42	18.81	19.81	20.23	19.70	20.75	20.13	21.13	21.56
4H	2H	15.98	17.22	16.38	17.57	17.95	18.23	19.47	18.63	19.82	20.20
	3H	17.90	18.93	18.31	19.33	19.74	19.48	20.51	19.89	20.91	21.32
	4H	18.71	19.64	19.14	20.06	20.50	19.97	20.90	20.40	21.31	21.75
	6H	19.35	20.16	19.81	20.60	21.06	20.35	21.16	20.81	21.60	22.06
	8H	19.58	20.33	20.04	20.78	21.25	20.46	21.22	20.92	21.66	22.13
	12H	19.75	20.43	20.24	20.91	21.38	20.53	21.21	21.01	21.68	22.16
8H	4H	19.03	19.79	19.49	20.23	20.70	20.16	20.92	20.62	21.36	21.83
	6H	19.82	20.45	20.32	20.94	21.42	20.65	21.27	21.15	21.76	22.24
	8H	20.15	20.71	20.67	21.22	21.71	20.82	21.38	21.34	21.89	22.38
	12H	20.43	20.92	20.94	21.42	21.98	20.96	21.45	21.47	21.94	22.51
12H	4H	19.05	19.73	19.54	20.21	20.68	20.18	20.85	20.66	21.33	21.80
	6H	19.88	20.44	20.39	20.95	21.44	20.68	21.25	21.20	21.76	22.24
	8H	20.27	20.77	20.78	21.26	21.82	20.91	21.41	21.42	21.90	22.47