

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059005

Luminaire Tested: S123RDRP-S1000D830-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059005
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S1000D830-X4F0-XX-UDD-BVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

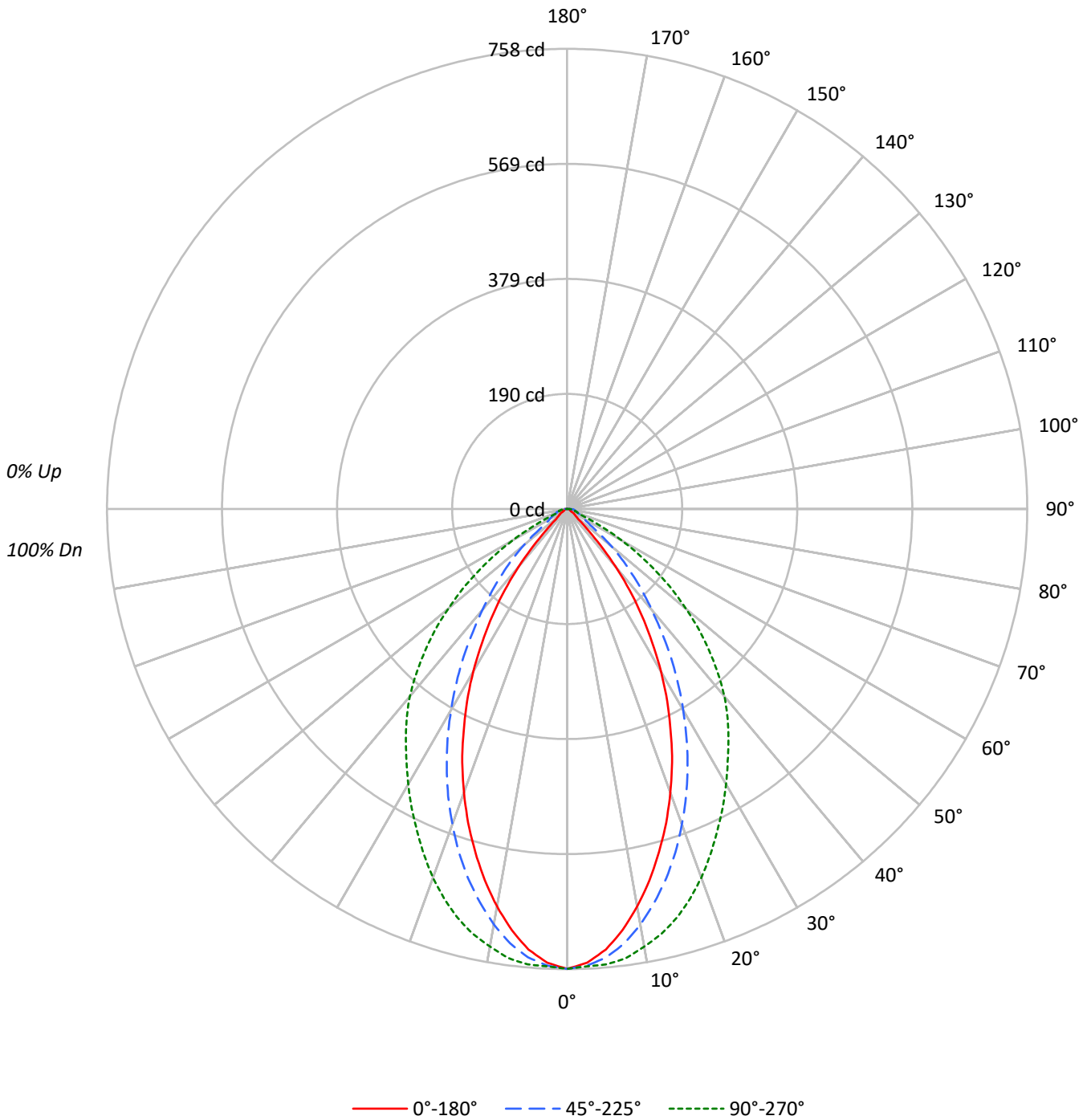
Lumens per Lamp: N/A
Luminaire Lumens: 909.9 lumens
Efficiency: N/A
Efficacy: 26.0 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): 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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CATALOG NUMBER: S123RDRP-S1000D830-X4F0-XX-UDD-BVL-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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8895	8895	8895
5°	8588	8738	8875
10°	7928	8287	8728
15°	7110	7660	8477
20°	6209	6904	8076
25°	5223	6078	7578
30°	4194	5182	7098
35°	3072	4267	6641
40°	1899	3320	6179
45°	731	2501	5502
50°	360	1714	4655
55°	285	948	3652
60°	190	789	2447
65°	161	709	1095
70°	158	635	635
75°	209	685	631
80°	311	859	703
85°	472	1401	930

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5502 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.5	7.6
10°-20°	177.8	19.5
20°-30°	220.7	24.3
30°-40°	197.7	21.7
40°-50°	130.0	14.3
50°-60°	65.1	7.2
60°-70°	25.7	2.8
70°-80°	14.4	1.6
80°-90°	9.0	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°	468.0	51.4
0°-40°	665.7	73.2
0°-60°	860.8	94.6
0°-90°	909.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	909.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	758	758	758	758	758	
5°	729	740	741	746	753	68
15°	585	604	630	673	697	163
25°	403	429	469	535	585	184
35°	214	243	298	389	463	133
45°	44	73	151	254	331	42
55°	14	16	46	125	178	12
65°	6	16	26	32	39	6
75°	5	15	15	14	14	5
85°	4	10	10	10	7	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	757.5	757.5	757.5	757.5	757.5
2.5°	748.2	758.7	752.9	752.9	754.0
5°	728.6	740.1	741.3	745.9	752.9
7.5°	699.6	714.7	721.6	735.5	745.9
10°	664.9	681.1	695.0	719.3	732.0
12.5°	626.6	642.8	663.7	697.3	717.0
15°	584.9	603.5	630.1	673.0	697.3
17.5°	542.1	560.6	593.0	641.7	673.0
20°	496.9	517.7	552.5	608.1	646.3
22.5°	451.7	474.9	512.0	572.2	616.2
25°	403.1	428.6	469.1	535.1	584.9
27.5°	356.7	383.4	426.2	498.1	554.8
30°	309.3	335.9	382.2	459.8	523.5
32.5°	260.6	290.7	339.4	423.9	492.3
35°	214.3	243.2	297.7	389.2	463.3
37.5°	169.1	198.1	254.8	355.6	434.4
40°	123.9	154.1	216.6	323.2	403.1
42.5°	81.1	112.4	183.0	290.7	368.3
45°	44.0	73.0	150.6	253.7	331.3
47.5°	24.3	39.4	121.6	218.9	295.4
50°	19.7	22.0	93.8	186.5	254.8
52.5°	16.2	18.5	67.2	155.2	217.8
55°	13.9	16.2	46.3	125.1	178.4
57.5°	11.6	13.9	37.1	96.1	140.2
60°	8.1	13.9	33.6	70.7	104.2
62.5°	6.9	13.9	29.0	48.6	69.5
65°	5.8	16.2	25.5	32.4	39.4
67.5°	4.6	16.2	22.0	20.8	20.8
70°	4.6	16.2	18.5	17.4	18.5
72.5°	4.6	17.4	17.4	16.2	16.2
75°	4.6	15.1	15.1	13.9	13.9
77.5°	4.6	13.9	13.9	12.7	12.7
80°	4.6	12.7	12.7	11.6	10.4
82.5°	4.6	11.6	11.6	10.4	9.3
85°	3.5	10.4	10.4	10.4	6.9
87.5°	3.5	9.3	10.4	9.3	5.8
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	0.05	1.31	0.42	1.62	1.94	14.14	15.40	14.50	15.71	16.02
	3H	2.57	3.68	2.95	4.01	4.38	14.22	15.33	14.60	15.66	16.03
	4H	3.73	4.77	4.14	5.12	5.51	14.28	15.32	14.68	15.67	16.05
	6H	4.78	5.73	5.20	6.10	6.50	14.38	15.33	14.79	15.70	16.09
	8H	5.32	6.22	5.75	6.61	7.01	14.44	15.34	14.87	15.73	16.13
	12H	5.80	6.66	6.23	7.04	7.47	14.51	15.37	14.94	15.75	16.18
4H	2H	3.32	4.35	3.72	4.70	5.09	14.00	15.03	14.40	15.39	15.77
	3H	5.77	6.62	6.19	7.02	7.43	14.17	15.02	14.59	15.42	15.83
	4H	7.12	7.88	7.56	8.30	8.74	14.30	15.06	14.74	15.48	15.92
	6H	8.25	8.90	8.71	9.35	9.82	14.51	15.17	14.98	15.62	16.08
	8H	8.76	9.37	9.23	9.81	10.29	14.64	15.25	15.11	15.70	16.17
	12H	9.21	9.75	9.70	10.24	10.71	14.80	15.34	15.29	15.82	16.30
8H	4H	8.04	8.65	8.51	9.10	9.57	14.30	14.91	14.77	15.36	15.83
	6H	9.63	10.13	10.13	10.63	11.11	14.63	15.13	15.14	15.63	16.11
	8H	10.46	10.91	10.98	11.42	11.92	14.86	15.31	15.38	15.83	16.32
	12H	11.24	11.64	11.75	12.13	12.70	15.18	15.58	15.70	16.08	16.65
12H	4H	8.21	8.75	8.69	9.23	9.70	14.29	14.83	14.78	15.32	15.79
	6H	9.95	10.40	10.47	10.91	11.41	14.66	15.11	15.19	15.63	16.12
	8H	10.96	11.36	11.47	11.85	12.42	14.97	15.37	15.49	15.87	16.44