

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P580583

Luminaire Tested: **HVSL4-4-LD4-1STD-40-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580583
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-6)
Test Lab: INNOVATION CENTER
Issue Date: 12/16/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: HVSL4-4-LD4-1STD-40-UNV-O-EDD-90
Description: 4 FOOT, 4INCH WIDE, HVSL LED LUMINAIRE, WITH 4000K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

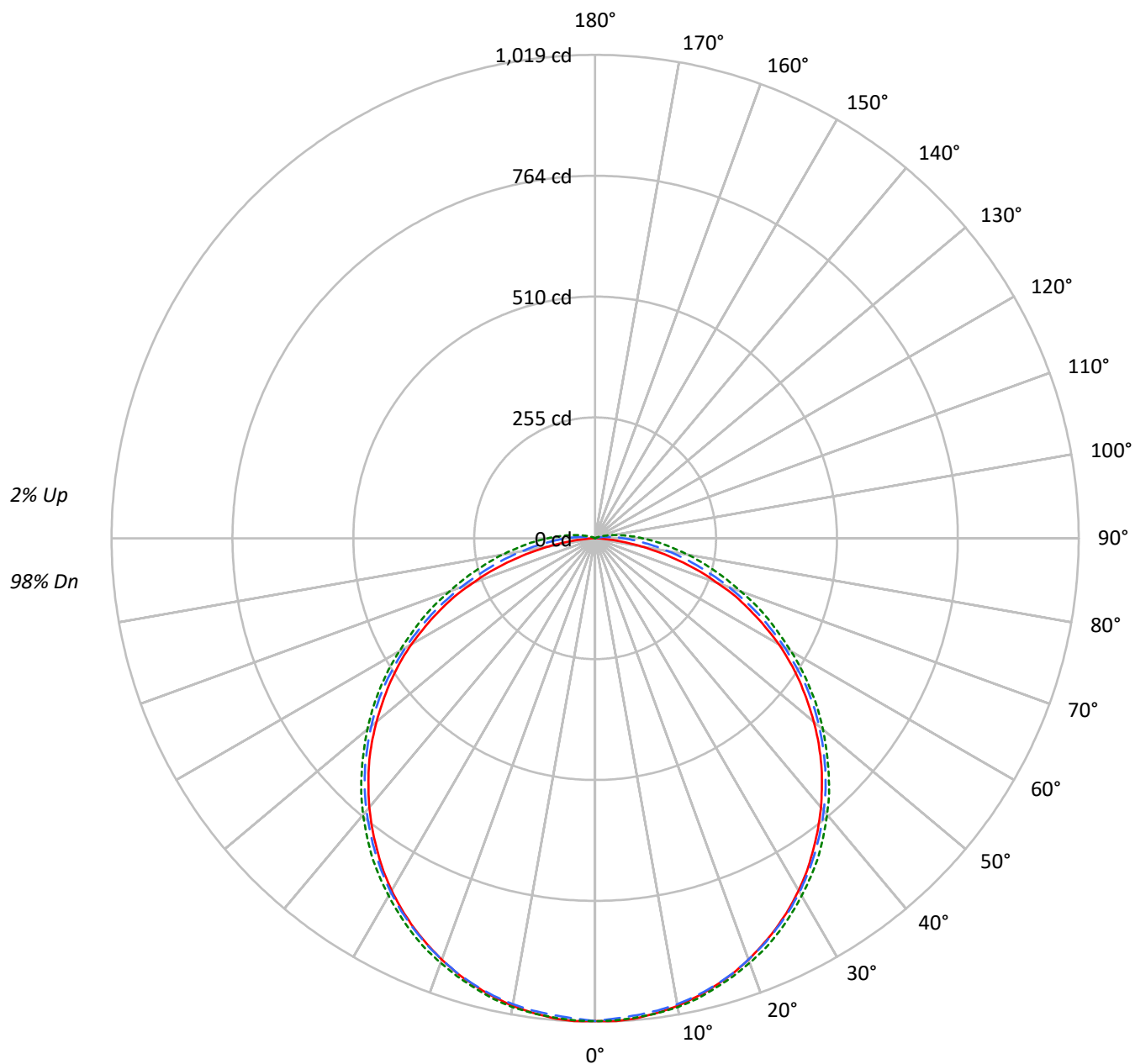
Lumens per Lamp: N/A
Luminaire Lumens: 3077.0 lumens
Efficiency: N/A
Efficacy: 94.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 32.7
Input Voltage (V): NR
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: 25 FT

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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	110	110	110	105	105	105	101	101	101			98
1	108	102	98	94	105	100	96	92	95	92	89	91	88	86	87	85	83			81
2	98	89	82	76	95	87	80	75	83	77	73	79	75	71	76	72	69			67
3	89	78	69	63	86	76	68	62	73	66	61	70	64	59	67	62	58			56
4	81	69	60	53	79	67	59	52	65	57	52	62	56	51	60	54	50			47
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	43			41
6	69	55	46	40	67	54	46	39	52	45	39	50	44	38	49	43	38			36
7	64	50	41	35	62	49	41	35	47	40	34	46	39	34	44	38	34			32
8	59	46	37	31	58	45	37	31	43	36	31	42	35	30	41	35	30			28
9	55	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27			25
10	52	39	31	25	51	38	30	25	37	30	25	36	29	25	35	29	25			23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8216	8216	8216
5°	8199	7912	7871
10°	8145	7658	7560
15°	8074	7397	7232
20°	7999	7125	6921
25°	7909	6853	6616
30°	7805	6575	6296
35°	7673	6280	5984
40°	7536	5979	5645
45°	7388	5660	5295
50°	7196	5308	4931
55°	6989	4933	4546
60°	6742	4480	4123
65°	6339	3990	3703
70°	5763	3441	3244
75°	4940	2858	2814
80°	3715	2292	2404
85°	1989	1731	1996



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.3	3.1
10°-20°	276.2	9.0
20°-30°	419.2	13.6
30°-40°	506.8	16.5
40°-50°	528.8	17.2
50°-60°	483.5	15.7
60°-70°	376.9	12.2
70°-80°	235.8	7.7
80°-90°	107.1	3.5
90°-100°	35.9	1.2
100°-110°	9.0	0.3
110°-120°	1.4	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°	791.7	25.7
0°-40°	1298.5	42.2
0°-60°	2310.9	75.1
0°-90°	3030.7	98.5
90°-120°	46.3	1.5
90°-150°	46.3	1.5
90°-180°	46.0	1.5
0°-180°	3077.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1018	1018	1018	1018	1018	
5°	1016	1014	1009	1014	1014	96
15°	977	979	976	982	981	276
25°	905	906	907	914	916	417
35°	801	805	808	816	820	502
45°	674	680	686	692	696	519
55°	526	532	542	550	554	470
65°	362	368	380	396	402	358
75°	183	194	223	249	259	195
85°	32	58	100	133	145	40
90°	0	22	59	89	100	1
95°	0	6	31	56	64	0
105°	0	1	5	15	20	1
115°	1	1	1	3	4	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1017.7	1017.7	1017.7	1017.7	1017.7
2.5°	1018.9	1017.4	1012.9	1017.4	1017.2
5°	1015.5	1013.6	1009.0	1013.8	1013.8
7.5°	1008.8	1008.1	1004.0	1009.5	1009.5
10°	1000.9	1000.7	997.3	1003.3	1003.5
12.5°	989.9	990.8	987.7	993.5	994.2
15°	976.9	978.6	975.9	981.5	981.2
17.5°	962.7	963.7	961.8	968.0	967.8
20°	945.2	946.4	945.0	951.5	952.2
22.5°	925.8	927.5	927.2	934.0	935.9
25°	905.2	905.9	906.8	914.5	916.0
27.5°	882.4	883.6	885.3	892.2	893.7
30°	857.4	859.3	861.3	868.5	870.4
32.5°	831.0	833.0	835.4	844.7	845.7
35°	801.3	804.9	808.2	816.4	819.8
37.5°	771.5	776.1	779.2	787.9	790.5
40°	740.1	744.7	749.7	758.8	760.5
42.5°	707.2	712.5	718.5	726.7	729.6
45°	674.1	680.1	685.7	692.4	695.7
47.5°	638.4	644.4	651.1	658.8	660.9
50°	601.4	608.4	615.6	622.8	626.6
52.5°	563.5	571.9	580.1	587.8	591.4
55°	526.1	532.4	542.2	550.1	553.7
57.5°	487.3	492.5	501.4	514.4	516.3
60°	447.7	452.5	461.6	472.1	476.5
62.5°	404.0	410.5	420.1	433.5	437.4
65°	361.5	367.8	380.5	395.6	401.8
67.5°	320.5	322.7	339.0	354.8	364.9
70°	272.1	280.2	299.2	318.6	326.3
72.5°	230.3	238.5	259.3	282.1	291.7
75°	183.0	194.3	222.6	249.3	258.6
77.5°	141.5	154.0	189.0	215.9	226.7
80°	98.8	118.3	156.4	186.6	198.4
82.5°	62.1	86.1	126.9	158.6	168.9
85°	31.7	58.5	100.5	132.9	144.7
87.5°	8.4	37.9	78.2	109.2	121.2
90°	0.2	21.8	59.3	89.0	99.8
92.5°	0.2	12.2	44.1	70.8	81.8
95°	0.2	5.8	30.7	55.7	64.3
97.5°	0.2	2.4	21.1	42.0	50.6
100°	0.2	1.2	13.4	30.5	37.9
102.5°	0.5	0.7	8.4	21.8	27.8
105°	0.5	0.7	5.0	14.9	19.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.7	0.7	1.0	4.1	6.0
115°	0.7	0.7	1.0	2.6	3.8
117.5°	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - 90°-270°







107.5°	0.5	0.7	2.9	10.1	13.7
110°	0.7	0.7	1.7	6.2	9.1



(END OF REPORT)