

LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P518190

Luminaire Tested: HVL8-8-LD4-1STD-30-UNV-O-EDD

Issue Date: 4/27/2021

Tested By:

Approved By:



NVLAP Lab Code: 200050-0

Cooper Lighting Solutions laboratories have been accredited by National Voluntary Laboratory Accreditation Program (NVLAP) that it adheres to the requirements of ISO/IEC 17025:2005 and appropriate IESNA test methods. This report must not be used to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the Federal Government. Results contained in this report are valid for luminaire sample tested, as supplied by requestor. Information related to the luminaire tested has been supplied by requestor and can affect the validity of the test results. Report shall not be reproduced except in full without approval of Cooper Lighting Solutions Lighting Laboratory. Test performed at address noted above.

Test Information

Test Method: LM-79-2019
Report Number: P518190
Test Lab: INNOVATION CENTER
Issue Date: 4/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: HVL8-8-LD4-1STD-30-UNV-O-EDD
Description: 8 FOOT, 8 INCH WIDE, HVL LED LUMINAIRE, WITH 3000K, 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5496.0 lumens
Efficiency: N/A
Efficacy: 84.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 8' x H: 0.17')
CIE Type: Direct

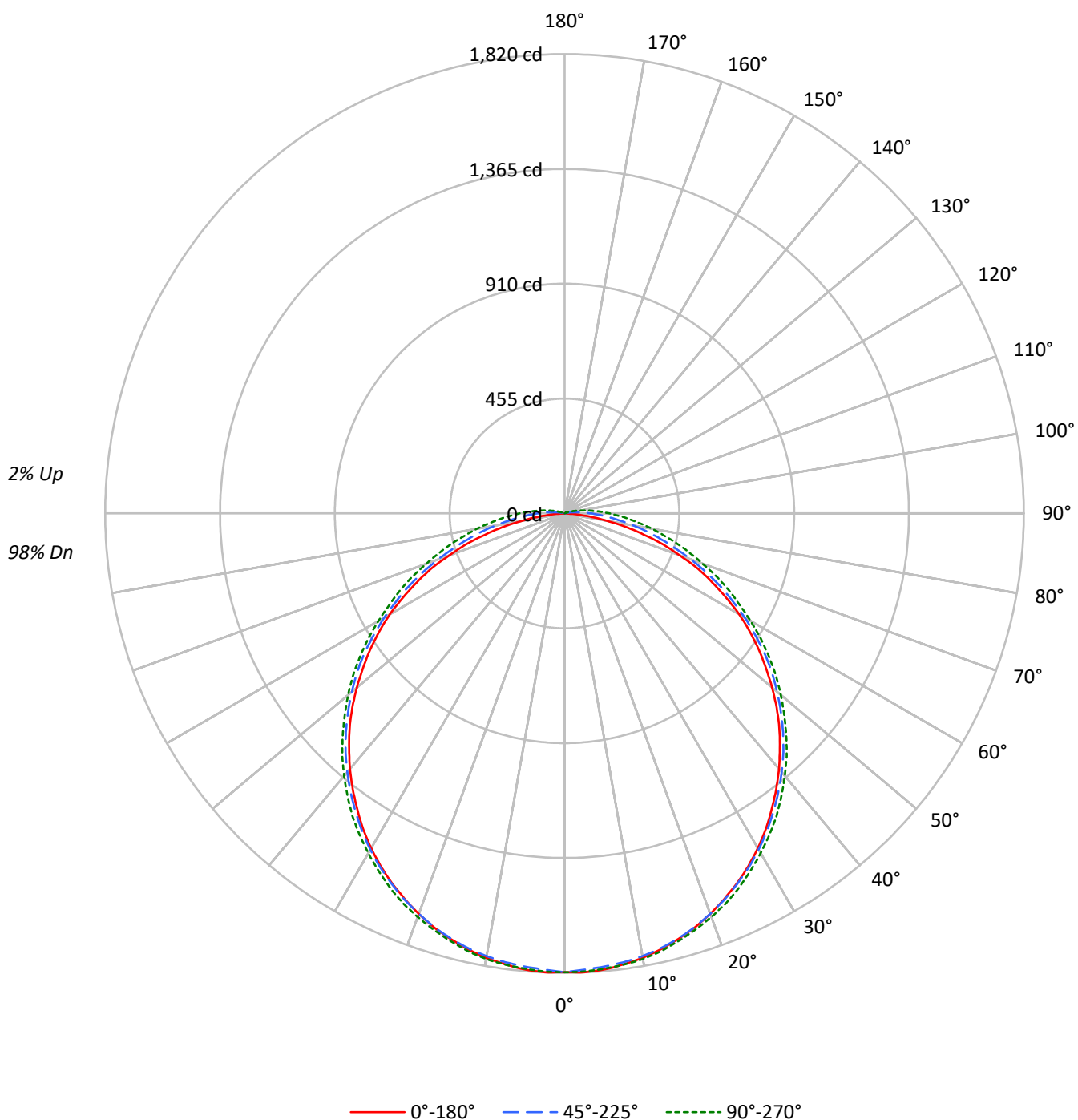
Input Watts (W): 65.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	P3	10/30/2015	4/30/2016
Power Meter	IN0214	1/12/2016	1/12/2017
AC Power Source	IN0062	1/12/2016	1/12/2017
DC Power Supply	--	--	--
Room Thermometer	IN0145	1/13/2016	1/13/2017

TEST NUMBER: P518190

CATALOG NUMBER: HVL8-8-LD4-1STD-30-UNV-O-EDD

Luminous Intensity Polar Plot



TEST NUMBER: P518190

CATALOG NUMBER: HVL8-8-LD4-1STD-30-UNV-O-EDD

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3669	3669	3669
5°	3668	3591	3590
10°	3650	3531	3518
15°	3626	3464	3432
20°	3599	3389	3348
25°	3566	3311	3263
30°	3527	3228	3166
35°	3475	3136	3070
40°	3423	3039	2958
45°	3367	2934	2837
50°	3291	2811	2708
55°	3211	2676	2564
60°	3115	2499	2397
65°	2952	2300	2231
70°	2712	2066	2039
75°	2366	1808	1863
80°	1835	1556	1703
85°	1059	1303	1551

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3367 cd/sqm

TEST NUMBER: P518190

CATALOG NUMBER: HVL8-8-LD4-1STD-30-UNV-O-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.0	3.1
10°-20°	493.4	9.0
20°-30°	748.7	13.6
30°-40°	905.3	16.5
40°-50°	944.6	17.2
50°-60°	863.6	15.7
60°-70°	673.2	12.2
70°-80°	421.2	7.7
80°-90°	191.3	3.5
90°-100°	64.1	1.2
100°-110°	16.1	0.3
110°-120°	2.5	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°	1414.1	25.7
0°-40°	2319.4	42.2
0°-60°	4127.6	75.1
0°-90°	5413.3	98.5
90°-120°	82.7	1.5
90°-150°	82.7	1.5
90°-180°	83.0	1.5
0°-180°	5496.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1818	1818	1818	1818	1818	
5°	1814	1810	1802	1811	1811	172
15°	1745	1748	1743	1753	1753	493
25°	1617	1618	1620	1634	1636	745
35°	1431	1438	1444	1458	1464	896
45°	1204	1215	1225	1237	1243	928
55°	940	951	968	983	989	840
65°	646	657	680	707	718	639
75°	327	347	398	445	462	349
85°	57	105	180	237	258	72
90°	0	39	106	159	178	2
95°	0	10	55	99	115	0
105°	1	1	9	27	36	1
115°	1	1	2	5	7	1
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	0

TEST NUMBER: P518190

CATALOG NUMBER: HVL8-8-LD4-1STD-30-UNV-O-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1817.7	1817.7	1817.7	1817.7	1817.7
2.5°	1819.9	1817.3	1809.2	1817.3	1816.9
5°	1813.9	1810.5	1802.3	1810.9	1810.9
7.5°	1801.9	1800.6	1793.3	1803.2	1803.2
10°	1787.7	1787.3	1781.3	1792.0	1792.5
12.5°	1768.0	1769.8	1764.2	1774.5	1775.8
15°	1744.9	1747.9	1743.2	1753.0	1752.6
17.5°	1719.6	1721.3	1717.9	1729.0	1728.6
20°	1688.3	1690.5	1687.9	1699.5	1700.8
22.5°	1653.6	1656.6	1656.2	1668.2	1671.6
25°	1616.8	1618.1	1619.8	1633.5	1636.1
27.5°	1576.1	1578.2	1581.2	1593.6	1596.2
30°	1531.5	1534.9	1538.4	1551.2	1554.6
32.5°	1484.4	1487.8	1492.1	1508.8	1510.5
35°	1431.2	1437.7	1443.7	1458.2	1464.2
37.5°	1378.1	1386.2	1391.8	1407.2	1411.9
40°	1322.0	1330.1	1339.1	1355.4	1358.4
42.5°	1263.3	1272.7	1283.4	1298.0	1303.1
45°	1204.1	1214.8	1224.7	1236.7	1242.7
47.5°	1140.3	1151.0	1163.0	1176.7	1180.5
50°	1074.3	1086.7	1099.6	1112.4	1119.3
52.5°	1006.6	1021.6	1036.1	1049.9	1056.3
55°	939.7	950.9	968.4	982.6	989.0
57.5°	870.3	879.7	895.6	918.7	922.2
60°	799.6	808.2	824.5	843.3	851.0
62.5°	721.6	733.2	750.3	774.3	781.2
65°	645.8	656.9	679.6	706.6	717.8
67.5°	572.5	576.3	605.5	633.8	651.8
70°	485.9	500.5	534.4	569.1	582.8
72.5°	411.4	425.9	463.2	503.9	521.1
75°	327.0	347.1	397.7	445.2	461.9
77.5°	252.8	275.1	337.7	385.7	404.9
80°	176.5	211.3	279.4	333.4	354.4
82.5°	111.0	153.8	226.7	283.2	301.7
85°	56.6	104.6	179.5	237.4	258.4
87.5°	15.0	67.7	139.7	195.0	216.4
90°	0.4	39.0	105.8	159.0	178.3
92.5°	0.4	21.9	78.8	126.4	146.1
95°	0.4	10.3	54.8	99.4	114.8
97.5°	0.4	4.3	37.7	75.0	90.4
100°	0.4	2.1	24.0	54.4	67.7
102.5°	0.9	1.3	15.0	39.0	49.7
105°	0.9	1.3	9.0	26.6	35.6
107.5°	0.9	1.3	5.1	18.0	24.4
110°	1.3	1.3	3.0	11.1	16.3

TEST NUMBER: P518190

CATALOG NUMBER: HVL8-8-LD4-1STD-30-UNV-O-EDD

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.3	1.3	1.7	7.3	10.7
115°	1.3	1.3	1.7	4.7	6.9
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

(END OF REPORT)