

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: LUMARK

Report Number: P233644

Luminaire Tested: **VRDN-C02-D-UNV-T5**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P233644  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1710-389-16)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: VRDN-CO2-D-UNV-T5  
Description: VERDEON ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 4000K, 1140mA LEDS AND TYPE V OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11226 lumens  
Efficiency: N/A  
Efficacy: 124.7 lumens/watt  
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')  
IES Classification: Type V - Short - Non-Cutoff  
BUG Rating: B4 - U0 - G3

Input Watts (W): 90  
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

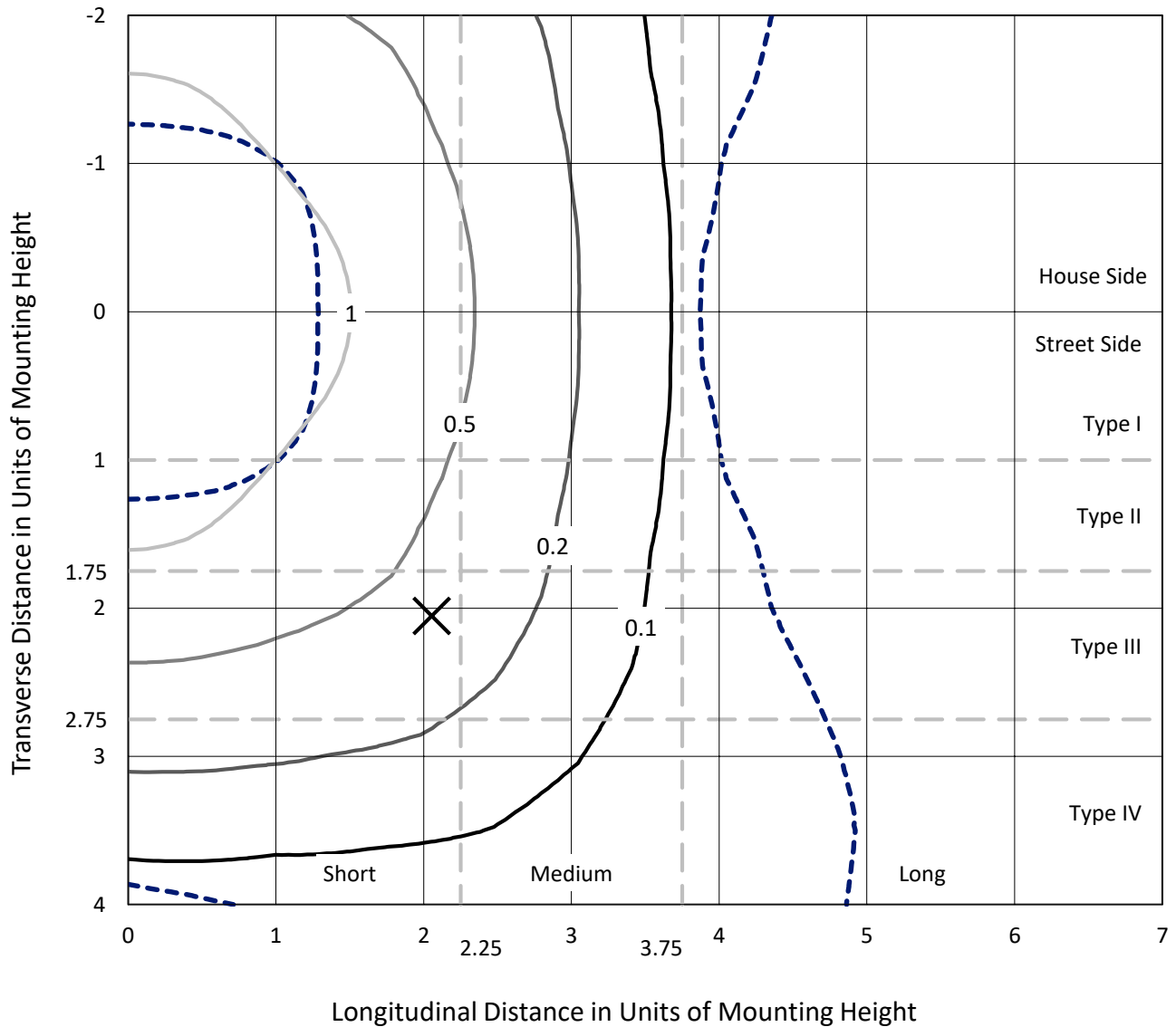


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

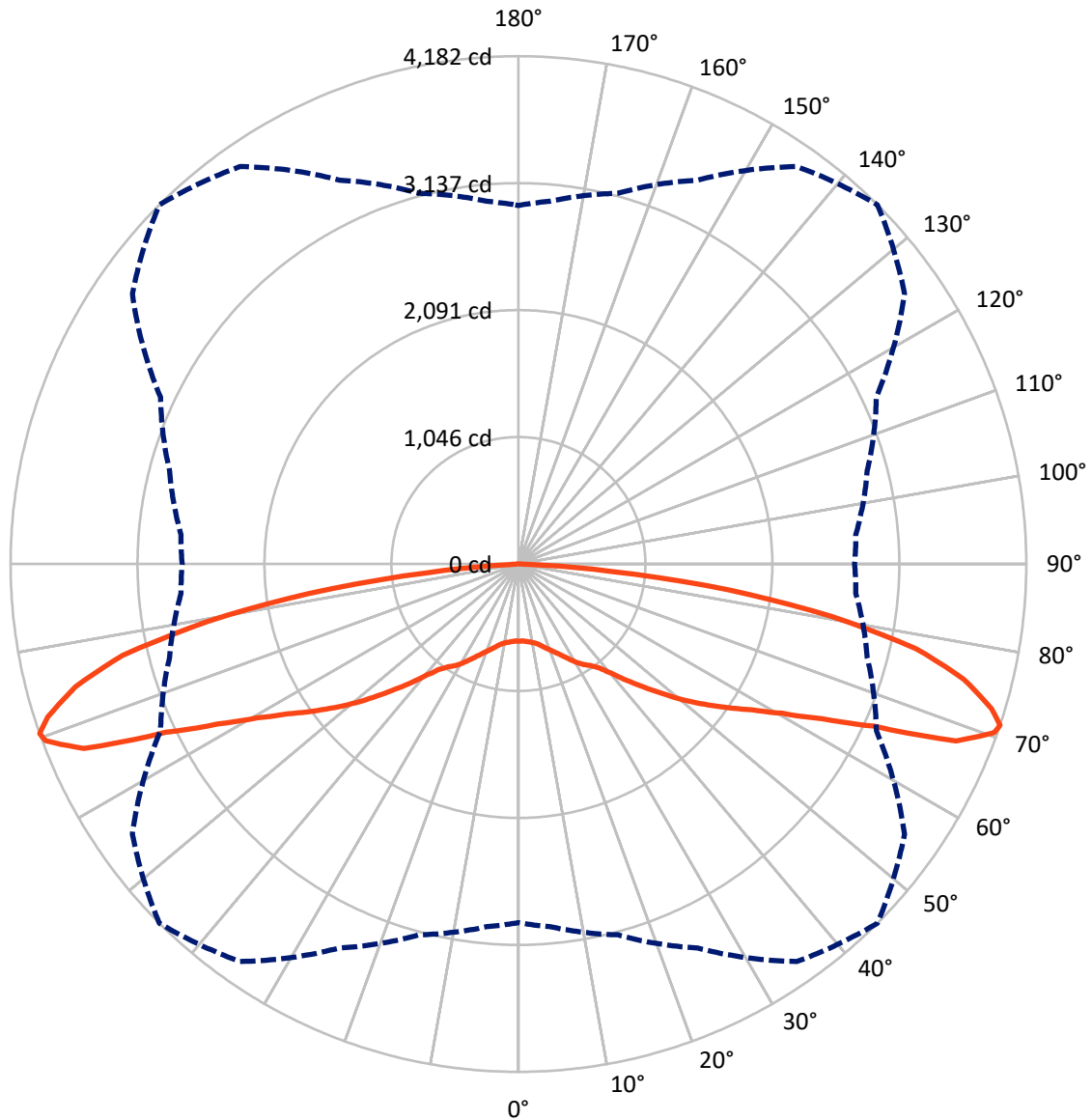


Based on 20 foot mounting height. Maximum calculated value = 1.6 fc  
 Type V - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical

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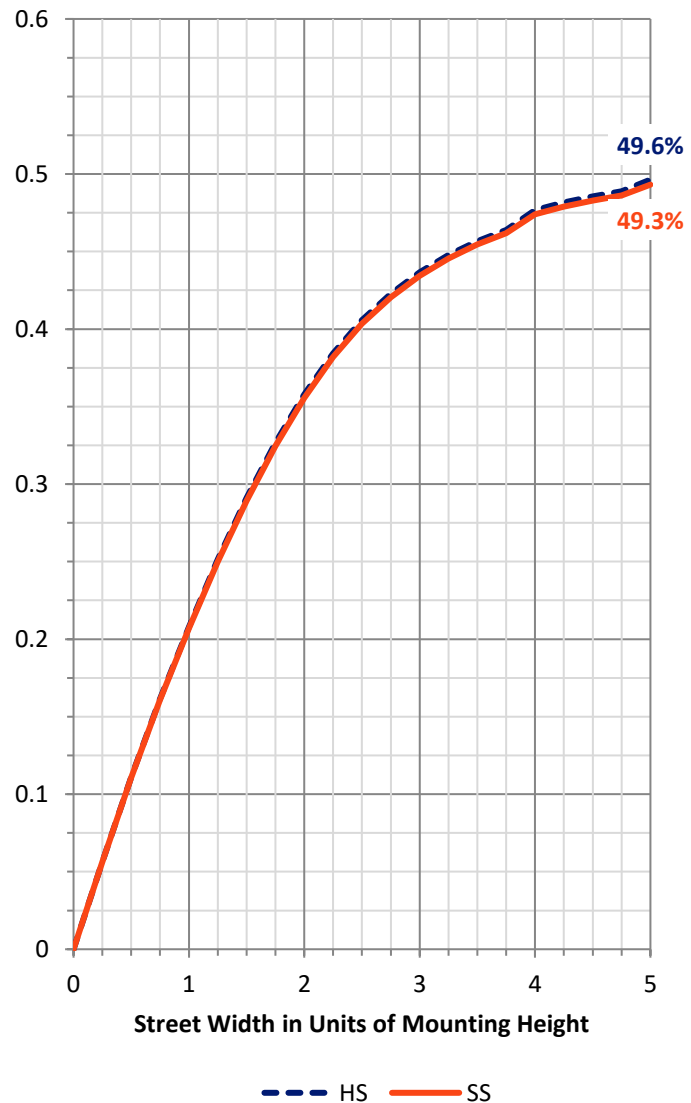
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5613.0	0.0	5613.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	5613.0	0.0	5613.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	11226.0	0.0	11226.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.8	0.6
10°-20°	198.4	1.8
20°-30°	382.5	3.4
30°-40°	646.9	5.8
40°-50°	1176.6	10.5
50°-60°	2006.9	17.9
60°-70°	3218.0	28.7
70°-80°	2926.0	26.1
80°-90°	608.7	5.4
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°-90°	11226.0	100.0
0°-180°	11226.0	100.0

**Coefficient of Utilization**



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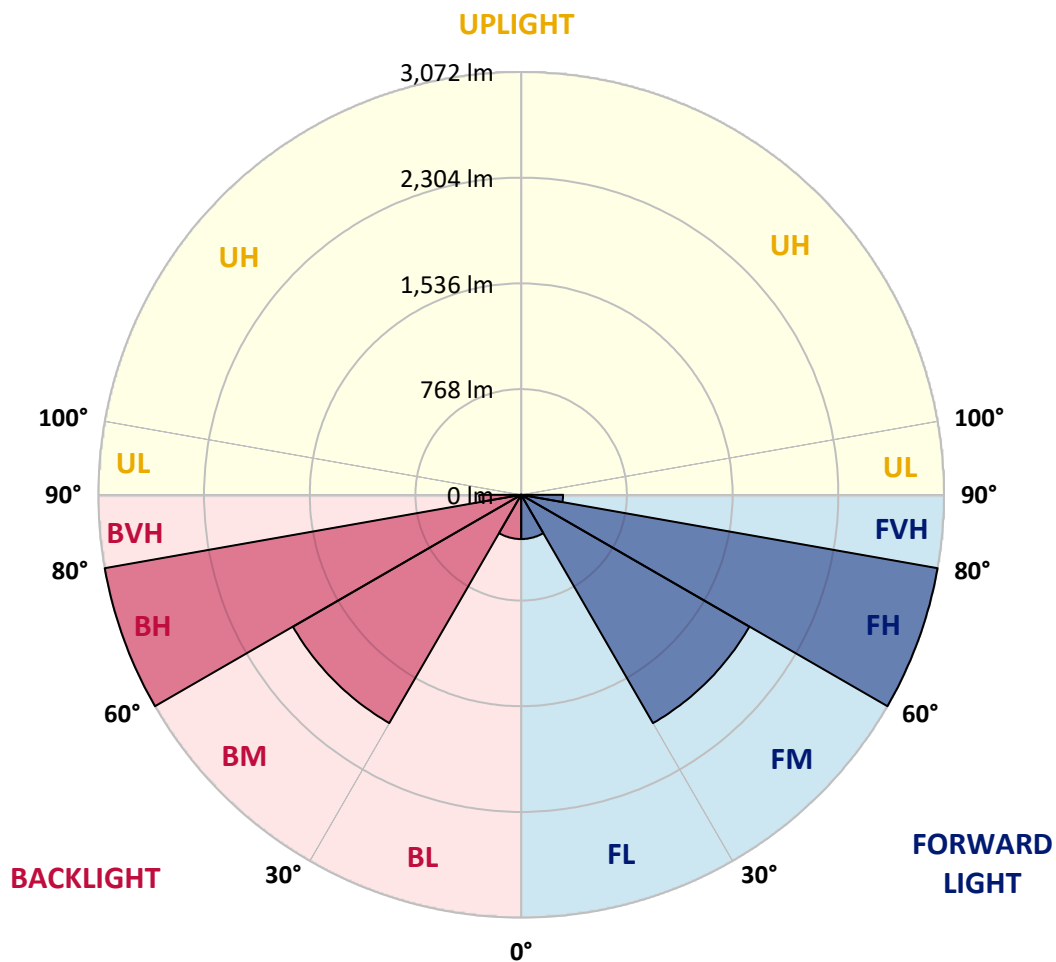
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	321.4	2.9			
FM	(30°-60°)	1915.2	17.1			
FH	(60°-80°)	3072.0	27.4			G2/5000
FVH	(80°-90°)	304.3	2.7			G3/500
BL	(0°-30°)	321.4	2.9	B1/500		
BM	(30°-60°)	1915.2	17.1	B2/2500		
BH	(60°-80°)	3072.0	27.4	B4/5000		G2/5000
BVH	(80°-90°)	304.3	2.7			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G3**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
2.5°	642.0	642.0	641.0	636.0	637.0	634.0	632.0	633.0	634.0	634.0	633.0
5°	647.0	647.0	646.0	642.0	643.0	640.0	639.0	640.0	642.0	644.0	642.0
7.5°	657.0	656.0	654.0	650.0	650.0	648.0	646.0	647.0	649.0	650.0	649.0
10°	668.0	667.0	664.0	660.0	660.0	658.0	654.0	654.0	654.0	653.0	652.0
12.5°	680.0	679.0	676.0	672.0	675.0	672.0	669.0	668.0	665.0	663.0	662.0
15°	699.0	698.0	695.0	692.0	700.0	696.0	691.0	686.0	684.0	682.0	680.0
17.5°	722.0	721.0	719.0	717.0	727.0	727.0	718.0	709.0	710.0	707.0	705.0
20°	749.0	748.0	746.0	748.0	759.0	758.0	746.0	735.0	739.0	733.0	731.0
22.5°	783.0	781.0	778.0	781.0	797.0	794.0	779.0	769.0	772.0	769.0	767.0
25°	820.0	816.0	812.0	816.0	842.0	836.0	821.0	809.0	815.0	813.0	812.0
27.5°	856.0	852.0	849.0	846.0	886.0	885.0	865.0	853.0	860.0	861.0	862.0
30°	891.0	890.0	885.0	881.0	924.0	938.0	904.0	899.0	904.0	910.0	912.0
32.5°	938.0	936.0	931.0	924.0	953.0	987.0	949.0	953.0	961.0	973.0	972.0
35°	1001.0	996.0	989.0	982.0	1000.0	1027.0	1010.0	1018.0	1032.0	1046.0	1044.0
37.5°	1068.0	1067.0	1060.0	1043.0	1063.0	1087.0	1082.0	1097.0	1121.0	1149.1	1145.1
40°	1164.1	1165.1	1150.1	1128.0	1145.1	1184.1	1189.1	1220.1	1262.1	1302.1	1303.1
42.5°	1315.1	1312.1	1301.1	1270.1	1281.1	1310.1	1334.1	1382.1	1434.1	1475.1	1481.1
45°	1502.1	1498.1	1476.1	1427.1	1424.1	1445.1	1480.1	1542.1	1605.1	1645.1	1648.1
47.5°	1716.1	1702.1	1668.1	1604.1	1581.1	1591.1	1627.1	1696.1	1761.1	1805.1	1802.1
50°	1927.1	1928.1	1887.1	1803.1	1757.1	1757.1	1778.1	1850.1	1916.1	1957.1	1958.1
52.5°	2165.1	2156.1	2116.1	2015.1	1940.1	1919.1	1926.1	1994.1	2062.1	2106.1	2106.1
55°	2405.1	2396.1	2357.1	2245.1	2148.1	2087.1	2080.1	2144.1	2218.1	2260.1	2265.1
57.5°	2652.1	2646.1	2605.1	2483.1	2362.1	2265.1	2249.1	2322.1	2400.1	2442.1	2445.1
60°	2909.1	2901.1	2860.1	2765.1	2617.1	2495.1	2465.1	2539.1	2632.1	2687.1	2684.1
62.5°	3208.1	3198.1	3166.1	3044.1	2939.1	2807.1	2748.1	2833.1	2944.1	3008.1	3013.1
65°	3448.2	3452.2	3482.2	3464.2	3366.1	3222.1	3163.1	3299.1	3363.1	3374.1	3366.1
67.5°	3385.1	3400.1	3466.2	3615.2	3792.2	3887.2	3655.2	3492.2	3370.1	3299.1	3289.1
70°	3113.1	3124.1	3282.1	3526.2	3995.2	4157.2	3864.2	3333.1	3077.1	2967.1	2954.1
71°	2953.1	2998.1	3161.1	3488.2	3996.2	4182.2	3881.2	3252.1	2974.1	2789.1	2769.1
72.5°	2709.1	2748.1	2953.1	3345.1	3938.2	4074.2	3701.2	3062.1	2740.1	2586.1	2535.1
75°	2209.1	2281.1	2462.1	2978.1	3673.2	3787.2	3379.1	2701.1	2356.1	2189.1	2176.1
77.5°	1571.1	1620.1	1894.1	2451.1	3238.1	3345.1	2987.1	2271.1	1906.1	1751.1	1734.1
80°	873.0	922.0	1211.1	1723.1	2500.1	2608.1	2286.1	1659.1	1295.1	1130.0	1062.0
82.5°	391.0	420.0	633.0	1021.0	1604.1	1744.1	1389.1	912.0	624.0	442.0	406.0
85°	136.0	151.0	252.0	463.0	821.0	758.0	476.0	228.0	80.0	39.0	36.0
87.5°	26.0	29.0	55.0	129.0	134.0	62.0	20.0	15.0	15.0	16.0	16.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)