

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: P233434

Luminaire Tested: **VRDN-C028-D-UNV-T1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P233434  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1710-389-18)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: VRDN-C028-D-UNV-T1  
Description: VERDEON ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 4000K, 930mA LEDS AND TYPE I OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9819 lumens  
Efficiency: N/A  
Efficacy: 134.5 lumens/watt  
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')  
IES Classification: Type I - Short - Full Cutoff  
BUG Rating: B3 - U0 - G3

Input Watts (W): 73  
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

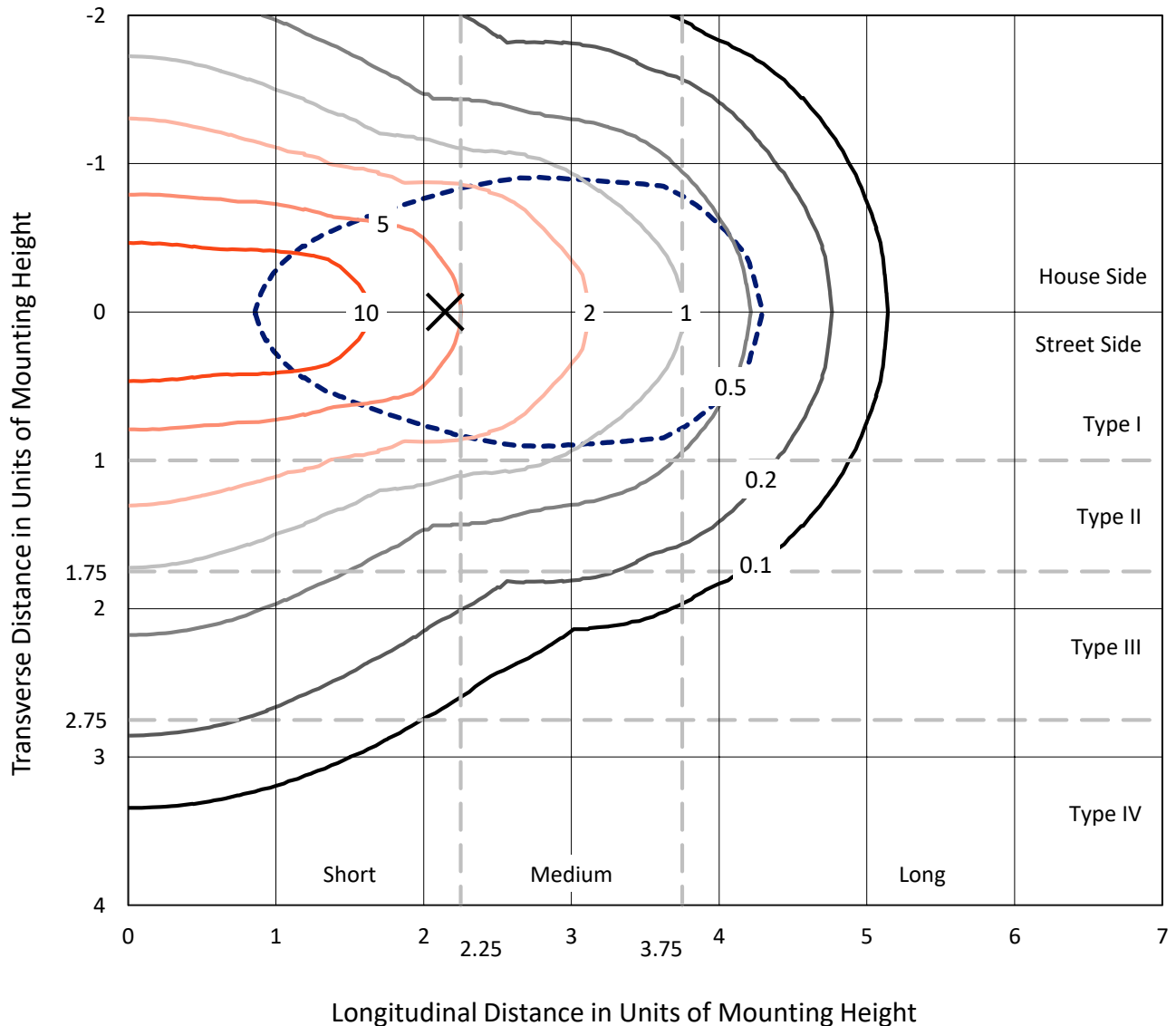


REPORT NUMBER: P233434

CATALOG NUMBER: VRDN-C028-D-UNV-T1

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

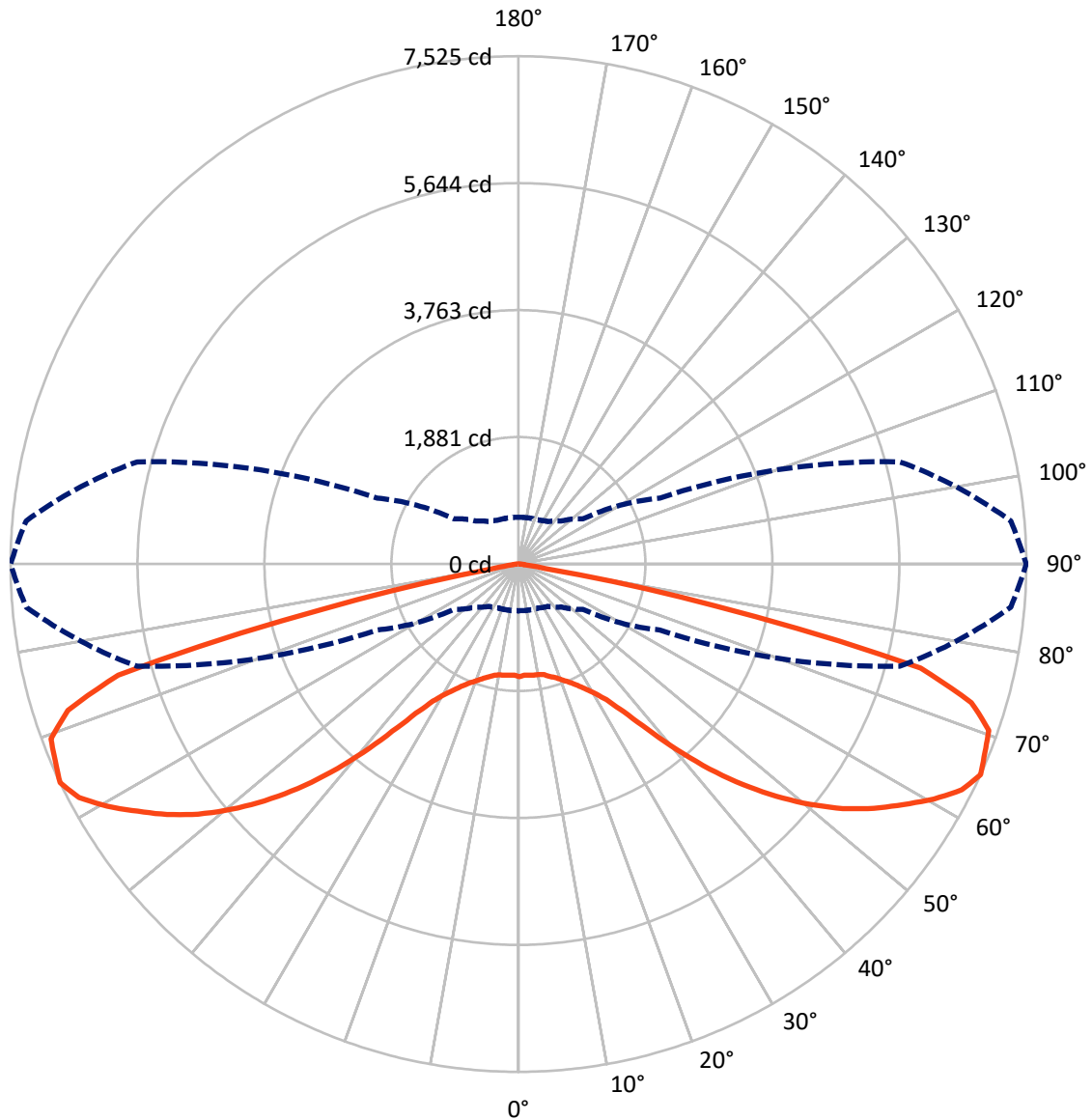


Based on 10 foot mounting height. Maximum calculated value = 16.7 fc  
 Type I - Short - Full Cutoff

REPORT NUMBER: P233434

CATALOG NUMBER: VRDN-C028-D-UNV-T1

### Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P233434

CATALOG NUMBER: VRDN-C028-D-UNV-T1

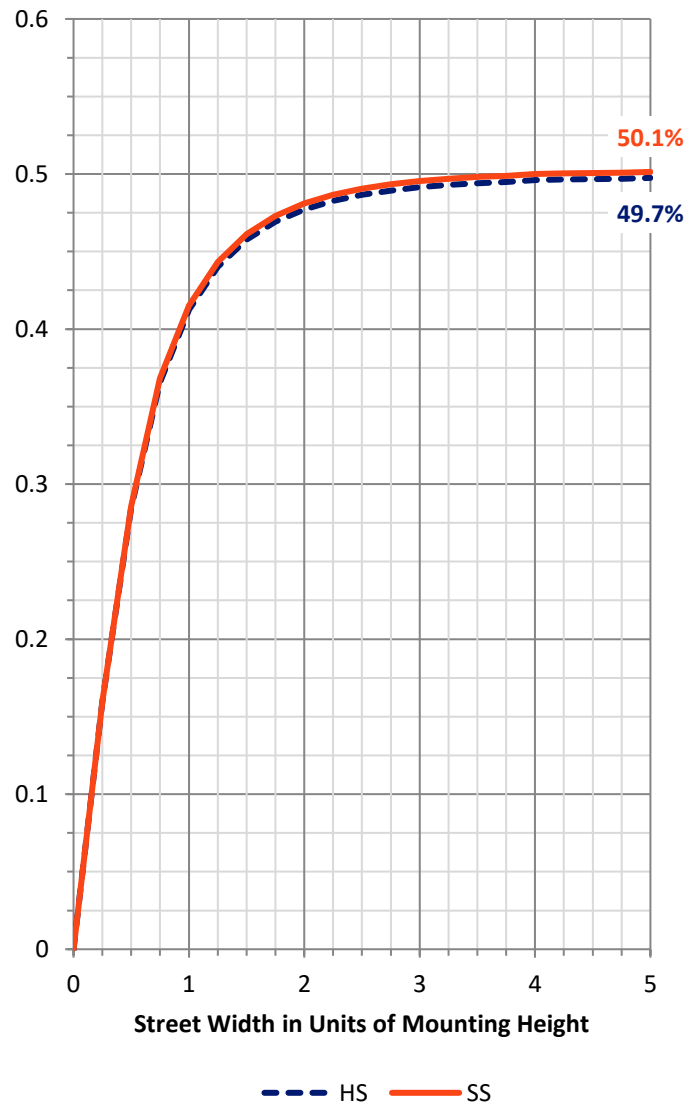
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4909.5	0.0	4909.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	4909.5	0.0	4909.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	9819.0	0.0	9819.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	158.3	1.6
10°-20°	467.6	4.8
20°-30°	766.7	7.8
30°-40°	1108.6	11.3
40°-50°	1623.4	16.5
50°-60°	2106.0	21.4
60°-70°	2227.2	22.7
70°-80°	1307.4	13.3
80°-90°	53.9	0.5
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°	9819.0	100.0
0°-180°	9819.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P233434

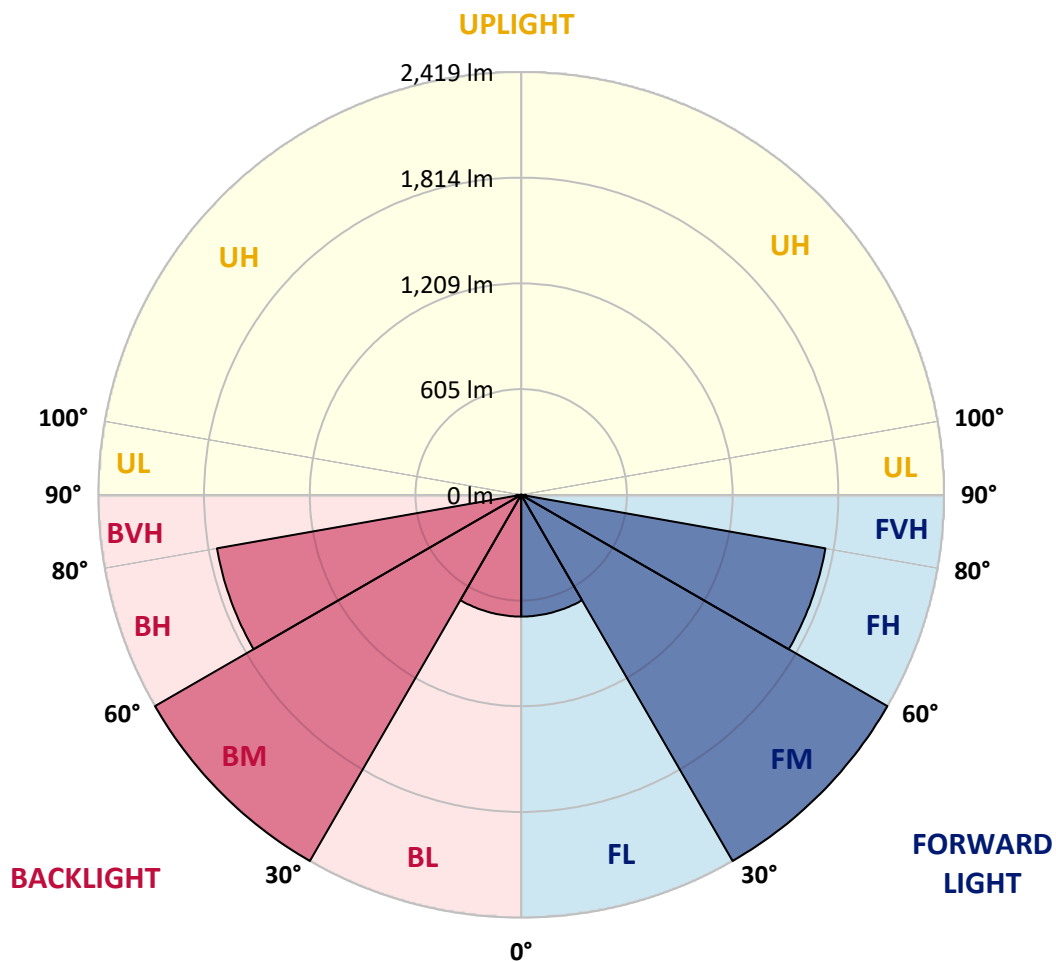
CATALOG NUMBER: VRDN-C028-D-UNV-T1

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	696.3	7.1			
FM	(30°-60°)	2419.0	24.6			
FH	(60°-80°)	1767.3	18.0			G1/1800
FVH	(80°-90°)	26.9	0.3			G1/100
BL	(0°-30°)	696.3	7.1	B2/1000		
BM	(30°-60°)	2419.0	24.6	B2/2500		
BH	(60°-80°)	1767.3	18.0	B3/2500		G3/2500
BVH	(80°-90°)	26.9	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type I Short





REPORT NUMBER: P233434

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1671.3	1671.3	1671.3	1671.3	1671.3	1671.3	1671.3	1671.3	1671.3	1671.3	1671.3
2.5°	1687.4	1685.7	1676.4	1662.8	1658.6	1662.0	1661.1	1656.9	1656.9	1658.6	1647.5
5°	1677.2	1674.7	1663.6	1660.3	1661.1	1665.3	1664.5	1661.1	1662.8	1661.1	1652.6
7.5°	1659.4	1656.9	1650.1	1648.4	1646.7	1653.5	1660.3	1664.5	1669.6	1667.0	1661.1
10°	1642.5	1637.4	1638.2	1629.7	1633.1	1645.8	1652.6	1660.3	1667.9	1667.0	1665.3
12.5°	1617.0	1611.9	1614.5	1611.9	1623.8	1639.1	1659.4	1673.8	1682.3	1679.7	1682.3
15°	1585.7	1584.0	1588.2	1591.6	1612.8	1647.5	1669.6	1700.9	1719.6	1720.4	1726.4
17.5°	1550.1	1546.7	1554.3	1567.0	1606.0	1644.2	1699.2	1734.0	1761.1	1765.3	1770.4
20°	1489.9	1491.6	1503.5	1525.5	1580.6	1649.2	1717.0	1769.6	1808.6	1818.7	1829.8
22.5°	1414.5	1418.7	1440.8	1486.5	1557.7	1643.3	1736.5	1811.1	1867.0	1889.9	1896.7
25°	1335.7	1342.4	1378.0	1439.1	1531.4	1640.8	1761.1	1859.4	1939.1	1975.5	1979.8
27.5°	1265.3	1271.3	1317.0	1395.0	1506.9	1641.6	1783.1	1917.9	2025.5	2078.9	2087.4
30°	1194.1	1200.9	1248.4	1345.0	1482.3	1639.9	1808.6	1984.0	2128.9	2205.2	2217.9
32.5°	1133.1	1139.9	1189.0	1289.9	1451.8	1637.4	1839.1	2064.5	2253.5	2377.2	2394.2
35°	1081.4	1089.0	1139.0	1238.2	1412.8	1638.2	1883.1	2174.7	2446.7	2651.0	2684.0
37.5°	1038.2	1045.8	1089.9	1189.9	1373.0	1631.4	1936.5	2313.7	2702.7	3040.8	3101.9
40°	1011.1	1017.8	1050.9	1139.9	1324.6	1616.2	1998.4	2467.9	3015.4	3508.7	3615.4
42.5°	983.1	990.7	1017.8	1094.1	1272.9	1593.3	2052.6	2623.0	3341.7	3999.4	4151.9
45°	952.6	957.7	987.3	1056.0	1222.1	1557.7	2100.1	2771.3	3684.1	4497.7	4663.0
47.5°	927.2	929.7	954.3	1017.8	1168.7	1505.2	2112.8	2898.5	4029.9	4982.5	5144.3
50°	910.2	906.0	928.9	983.9	1118.7	1432.3	2090.8	2993.4	4401.9	5445.2	5598.6
52.5°	883.9	883.1	900.9	950.9	1071.2	1348.4	2012.0	3039.1	4774.0	5878.3	6020.7
55°	859.4	859.4	873.8	912.8	1021.2	1261.9	1877.2	3020.5	5130.8	6288.5	6392.7
57.5°	823.8	822.9	834.8	870.4	962.8	1180.6	1706.9	2934.1	5420.6	6668.1	6724.9
60°	789.0	788.2	795.0	822.1	906.8	1093.3	1524.7	2764.6	5707.9	7003.8	7071.6
62.5°	745.0	744.1	750.9	774.6	844.1	1000.1	1345.8	2557.8	5876.6	7197.0	7372.4
65°	692.4	693.3	701.7	717.0	766.1	900.0	1168.7	2311.1	5848.6	7322.4	7525.0
67.5°	642.4	639.9	646.6	649.2	685.6	795.0	1003.4	2115.4	5635.0	7344.5	7454.6
70°	580.5	577.1	577.1	567.0	592.4	672.1	848.3	1910.3	5028.2	7143.6	7394.5
72.5°	485.6	485.6	480.5	469.5	485.6	544.9	706.8	1681.4	4073.9	6708.0	7019.0
75°	302.6	305.1	316.1	350.0	373.7	411.0	560.2	1417.0	3328.1	5580.8	6154.6
77.5°	155.1	158.5	162.7	163.6	169.5	177.1	267.0	793.3	1691.6	2780.7	2966.3
80°	39.0	39.8	95.8	106.8	114.4	117.8	98.3	264.4	438.2	410.2	400.9
82.5°	26.3	28.0	55.1	67.8	62.7	47.5	54.2	80.5	65.3	89.0	100.0
85°	14.4	14.4	24.6	26.3	27.1	30.5	27.1	26.3	29.7	56.8	66.1
87.5°	6.8	6.8	10.2	12.7	12.7	15.3	12.7	13.6	13.6	26.3	30.5
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)