



8165 E. Kaiser Blvd. Anaheim, CA 92808  
 www.lightlaboratory.com

# Photometric Test Report

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : L121800901.IES**

**DESCRIPTIVE INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
 [TEST] L121800901  
 [TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)  
 [ISSUEDATE] 12/17/2018  
 [MANUFAC] Vista Professional Outdoor Lighting  
 [LUMCAT] 1181-X-F-30-A-MV-ND  
 [LUMINAIRE] Marker Light, F-Full 360° Distribution  
 [BALLASTCAT] CUSTOM DRIVER  
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND  
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.  
 [INPUT] 119.98VAC, 13.99W  
 [TEST PROCEDURE] IESNA:LM-79-08

**CHARACTERISTICS**

IES Classification	Type IV
Longitudinal Classification	Very Long
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	68
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	5
Total Luminaire Watts	13.99
Ballast Factor	1.00
Upward Waste Light Ratio	0.50
Maximum Candela	32.25
Maximum Candela Angle	30H 87V
Maximum Candela (<90 Degrees Vertical)	32.25
Maximum Candela Angle (<90 Degrees Vertical)	30H 87V
Maximum Candela At 90 Degrees Vertical	26.76 (39.4% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	32.25 (47.4% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	< 0.05	N.A.	0.1
FM - Front-Medium (30-60)	0.4	N.A.	0.6
FH - Front-High (60-80)	4.3	N.A.	6.3
FVH - Front-Very High (80-90)	12.1	N.A.	17.9
BL - Back-Low (0-30)	< 0.05	N.A.	0.1
BM - Back-Medium (30-60)	0.4	N.A.	0.6
BH - Back-High (60-80)	4.3	N.A.	6.3
BVH - Back-Very High (80-90)	12.1	N.A.	17.9
UL - Uplight-Low (90-100)	14.9	N.A.	21.9
UH - Uplight-High (100-180)	19.5	N.A.	28.6
<b>Total</b>	<b>68.0</b>	<b>N.A.</b>	<b>100.0</b>
<b>BUG Rating</b>	<b>B0-U2-G1</b>		

**ZONAL LUMEN SUMMARY**

Zone	%
0-20	0
0-30	0.1
0-40	0.3
0-60	1.4
0-80	13.9
0-90	49.6
10-90	49.6
20-40	0.3
20-50	0.6
40-70	4.3
60-80	12.5
70-80	9.3
80-90	35.7
90-110	34.2
90-120	44.3
90-130	48.2
90-150	50.2
90-180	50.4
110-180	16.2
0-180	100

**IES ROAD REPORT**  
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**CANDELA TABULATION**

Vert. Angles	Horizontal Angles									
	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>35</u>	<u>40</u>	<u>45</u>
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
30	0.19	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
40	0.23	0.23	0.22	0.23	0.21	0.21	0.21	0.21	0.21	0.21
45	0.30	0.28	0.28	0.29	0.28	0.27	0.27	0.27	0.27	0.27
50	0.40	0.40	0.40	0.39	0.38	0.38	0.38	0.38	0.38	0.38
55	0.61	0.61	0.61	0.61	0.60	0.59	0.59	0.59	0.59	0.59
60	0.82	0.82	0.83	0.84	0.82	0.82	0.82	0.81	0.81	0.80
62	1.69	1.69	1.69	1.68	1.68	1.68	1.69	1.69	1.69	1.69
64	2.59	2.63	2.57	2.63	2.59	2.59	2.63	2.65	2.61	2.59
66	2.66	2.67	2.66	2.66	2.70	2.79	2.75	2.73	2.69	2.65
68	3.09	3.12	3.13	3.12	3.16	3.13	3.13	3.09	3.05	3.00
70	3.81	3.82	3.83	3.83	3.84	3.83	3.79	3.77	3.71	3.62
72	4.84	4.85	4.87	4.86	4.86	4.84	4.81	4.77	4.71	4.59
74	5.59	5.60	5.62	5.62	5.62	5.60	5.58	5.55	5.48	5.38
76	6.81	6.81	6.83	6.83	6.84	6.83	6.84	6.83	6.76	6.65
78	8.52	8.54	8.55	8.58	8.61	8.64	8.67	8.67	8.64	8.53
80	10.99	10.99	11.03	11.10	11.16	11.25	11.32	11.36	11.36	11.29
81	14.25	14.27	14.32	14.41	14.50	14.62	14.72	14.78	14.82	14.76
82	18.11	18.15	18.21	18.30	18.40	18.50	18.63	18.70	18.72	18.60
83	22.30	22.34	22.41	22.48	22.57	22.66	22.76	22.83	22.80	22.54
84	26.34	26.35	26.40	26.47	26.53	26.62	26.67	26.69	26.58	26.14
85	29.39	29.41	29.45	29.51	29.56	29.61	29.65	29.63	29.49	28.85
86	31.40	31.43	31.46	31.52	31.56	31.59	31.61	31.58	31.40	30.55
87	32.10	32.11	32.13	32.17	32.20	32.23	32.25	32.20	32.02	31.18
88	31.28	31.26	31.30	31.33	31.36	31.38	31.38	31.36	31.15	30.43
89	29.18	29.18	29.25	29.28	29.31	29.31	29.32	29.28	29.15	28.57
90	26.62	26.63	26.66	26.69	26.73	26.74	26.76	26.73	26.62	26.14
91	23.77	23.80	23.81	23.83	23.87	23.88	23.91	23.90	23.81	23.43
92	21.01	21.01	21.04	21.07	21.10	21.14	21.18	21.18	21.12	20.84
93	18.50	18.52	18.55	18.59	18.64	18.69	18.75	18.79	18.79	18.63
94	16.38	16.40	16.43	16.47	16.52	16.60	16.67	16.75	16.78	16.69
95	14.50	14.50	14.54	14.59	14.65	14.74	14.82	14.92	14.97	14.92
96	12.78	12.79	12.83	12.87	12.94	13.03	13.12	13.21	13.29	13.26
97	11.21	11.24	11.27	11.33	11.39	11.47	11.57	11.68	11.75	11.75
98	9.85	9.85	9.89	9.93	9.99	10.07	10.17	10.29	10.35	10.37
99	8.66	8.69	8.72	8.76	8.83	8.90	9.00	9.09	9.18	9.17
100	7.74	7.75	7.77	7.82	7.88	7.95	8.06	8.16	8.22	8.22
101	7.11	7.12	7.15	7.19	7.25	7.31	7.40	7.49	7.56	7.55
102	6.83	6.84	6.87	6.91	6.93	7.02	7.11	7.19	7.26	7.24
103	6.86	6.86	6.87	6.91	6.96	7.03	7.10	7.18	7.24	7.20
104	7.14	7.15	7.18	7.20	7.25	7.30	7.37	7.43	7.48	7.42
105	7.68	7.68	7.71	7.73	7.76	7.82	7.88	7.93	7.95	7.89
106	8.45	8.45	8.49	8.50	8.52	8.57	8.62	8.65	8.65	8.58
107	10.44	10.44	10.46	10.48	10.50	10.53	10.57	10.60	10.59	10.46
108	12.14	12.15	12.15	12.16	12.16	12.16	12.19	12.21	12.20	12.01
109	12.51	12.51	12.51	12.51	12.51	12.50	12.52	12.51	12.46	12.20
110	11.88	11.86	11.89	11.89	11.87	11.89	11.88	11.88	11.81	11.53
112	10.22	10.23	10.26	10.28	10.29	10.28	10.30	10.30	10.23	9.96
114	8.54	8.55	8.56	8.58	8.58	8.58	8.59	8.59	8.54	8.30
116	6.97	6.98	6.98	6.99	7.01	7.03	7.06	7.04	6.96	6.80
118	5.45	5.46	5.48	5.50	5.55	5.64	5.69	5.69	5.59	5.46

**IES ROAD REPORT**  
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**CANDELA TABULATION - (Cont.)**

120	4.24	4.20	4.21	4.24	4.24	4.26	4.26	4.24	4.17	4.11
125	3.28	3.33	3.34	3.34	3.35	3.36	3.37	3.41	3.35	3.28
130	2.20	2.20	2.20	2.21	2.19	2.19	2.17	2.17	2.14	2.08
135	1.42	1.42	1.42	1.42	1.42	1.41	1.40	1.40	1.37	1.35
140	0.84	0.85	0.84	0.84	0.84	0.83	0.82	0.82	0.80	0.80
145	0.56	0.55	0.54	0.54	0.55	0.54	0.54	0.53	0.52	0.52
150	0.30	0.30	0.30	0.29	0.27	0.27	0.26	0.26	0.26	0.26
160	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.16	0.18	0.18
170	0.14	0.14	0.14	0.14	0.14	0.14	0.11	0.12	0.14	0.12
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Vert. Angles**      **Horizontal Angles**

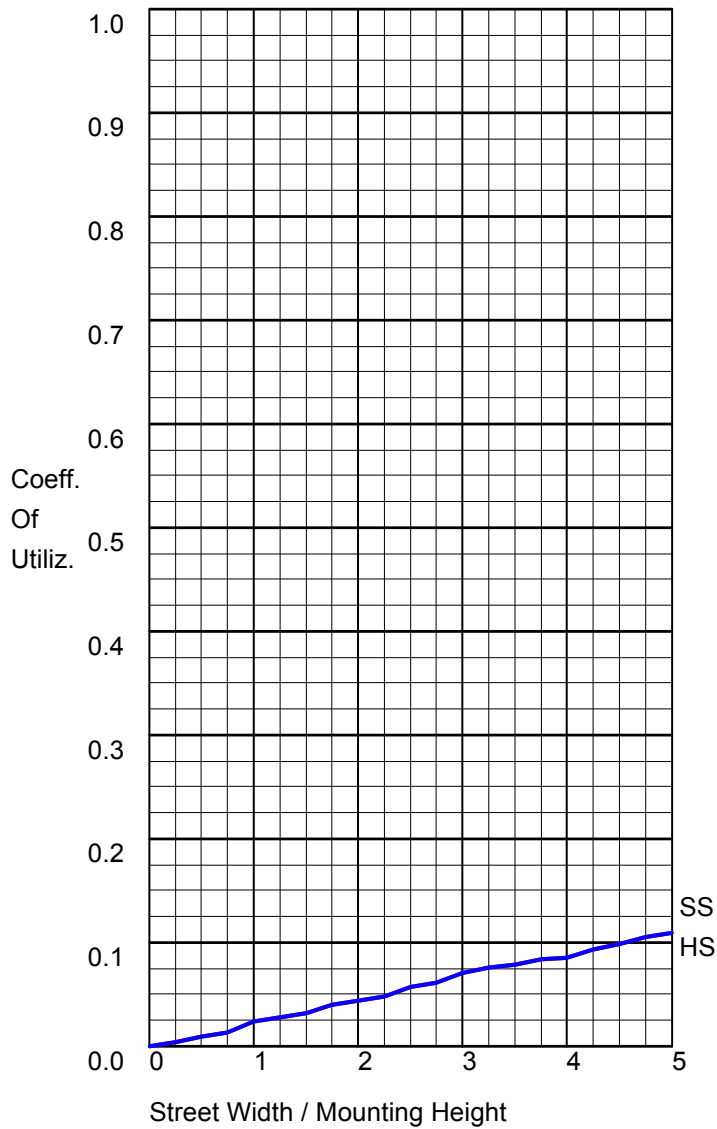
	<u>50</u>	<u>55</u>	<u>60</u>	<u>65</u>	<u>70</u>	<u>75</u>	<u>80</u>	<u>85</u>	<u>90</u>
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.14	0.14	0.14	0.14	0.15	0.14	0.14	0.14	0.14
30	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
40	0.21	0.21	0.20	0.21	0.21	0.20	0.21	0.20	0.19
45	0.27	0.27	0.27	0.26	0.27	0.25	0.25	0.25	0.25
50	0.38	0.37	0.36	0.34	0.34	0.32	0.31	0.31	0.30
55	0.59	0.56	0.54	0.52	0.49	0.47	0.45	0.44	0.44
60	0.79	0.77	0.73	0.71	0.67	0.62	0.59	0.55	0.54
62	1.63	1.58	1.51	1.41	1.32	1.20	1.03	0.97	0.96
64	2.52	2.49	2.41	2.37	2.25	2.09	1.35	1.21	1.21
66	2.58	2.51	2.40	2.31	2.17	1.97	1.63	1.53	1.52
68	2.93	2.81	2.67	2.51	2.36	2.17	1.99	1.92	1.90
70	3.52	3.34	3.18	3.01	2.82	2.64	2.47	2.39	2.39
72	4.45	4.25	4.04	3.83	3.61	3.37	3.12	3.04	3.00
74	5.21	4.97	4.75	4.52	4.25	3.94	3.61	3.48	3.46
76	6.46	6.22	5.93	5.56	5.21	4.80	4.33	4.17	4.12
78	8.37	8.09	7.69	7.27	6.68	6.05	5.46	5.22	5.15
80	11.13	10.75	10.23	9.57	8.67	7.84	7.15	6.77	6.69
81	14.52	13.97	13.22	12.20	11.16	10.01	9.15	8.85	8.79
82	18.16	17.44	16.40	14.98	13.69	12.36	11.50	11.26	11.28
83	21.91	20.83	19.39	17.88	16.22	14.76	13.99	13.80	13.87
84	25.25	23.72	22.01	20.20	18.34	16.91	16.28	16.29	16.45
85	27.50	25.75	23.89	21.61	19.84	18.52	18.06	18.27	18.53
86	29.07	27.14	24.83	22.63	20.77	19.49	19.23	19.53	19.84
87	29.59	27.52	25.25	23.09	20.77	19.60	19.42	19.84	20.12
88	29.08	26.85	24.71	22.56	20.36	18.80	18.50	18.82	19.12
89	27.20	25.39	23.52	21.16	19.19	17.49	16.83	16.93	17.13
90	24.99	23.50	21.59	19.60	17.73	15.96	15.03	14.89	15.02
91	22.57	21.26	19.63	17.93	16.02	14.29	13.29	12.96	13.03
92	20.22	19.04	17.67	16.14	14.41	12.74	11.68	11.21	11.21
93	18.08	17.22	16.04	14.47	13.01	11.43	10.25	9.79	9.69
94	16.29	15.55	14.43	13.13	11.80	10.30	9.13	8.58	8.44
95	14.62	13.98	13.08	11.99	10.55	9.29	8.21	7.49	7.35
96	13.05	12.49	11.73	10.71	9.60	8.33	7.23	6.62	6.41
97	11.54	11.14	10.50	9.55	8.59	7.51	6.44	5.82	5.61
98	10.21	9.85	9.30	8.59	7.68	6.69	5.82	5.15	4.94
99	9.05	8.72	8.27	7.67	6.90	6.03	5.27	4.62	4.42
100	8.06	7.81	7.45	6.86	6.28	5.52	4.78	4.30	4.09
101	7.41	7.17	6.79	6.33	5.80	5.15	4.53	4.10	3.91
102	7.09	6.81	6.48	6.06	5.48	4.98	4.51	4.08	3.95
103	7.06	6.75	6.37	5.92	5.47	4.97	4.52	4.27	4.16

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : L121800901.IES**

**CANDELA TABULATION - (Cont.)**

<b>104</b>	7.24	6.91	6.49	6.03	5.58	5.14	4.74	4.58	4.51
<b>105</b>	7.68	7.25	6.77	6.31	5.83	5.38	5.07	4.98	4.93
<b>106</b>	8.34	7.80	7.26	6.76	6.23	5.75	5.48	5.46	5.47
<b>107</b>	10.05	9.34	8.67	8.03	7.32	6.77	6.47	6.56	6.62
<b>108</b>	11.48	10.67	9.82	9.06	8.33	7.68	7.36	7.52	7.63
<b>109</b>	11.52	10.69	9.82	9.08	8.43	7.81	7.55	7.75	7.89
<b>110</b>	10.85	10.08	9.38	8.58	7.98	7.51	7.22	7.42	7.56
<b>112</b>	9.41	8.71	8.09	7.41	6.89	6.49	6.39	6.57	6.65
<b>114</b>	7.90	7.34	6.81	6.31	5.77	5.44	5.39	5.51	5.61
<b>116</b>	6.52	6.16	5.77	5.29	4.79	4.47	4.35	4.39	4.44
<b>118</b>	5.27	5.08	4.86	4.52	4.08	3.60	3.39	3.34	3.34
<b>120</b>	3.99	3.87	3.67	3.41	3.15	2.86	2.64	2.54	2.52
<b>125</b>	3.21	3.07	2.93	2.74	2.59	2.40	2.13	2.02	1.97
<b>130</b>	2.03	1.95	1.83	1.74	1.64	1.55	1.49	1.46	1.47
<b>135</b>	1.32	1.27	1.21	1.14	1.07	1.03	0.98	0.98	0.98
<b>140</b>	0.77	0.75	0.73	0.71	0.68	0.66	0.63	0.63	0.63
<b>145</b>	0.51	0.50	0.49	0.47	0.46	0.45	0.45	0.44	0.44
<b>150</b>	0.26	0.26	0.26	0.26	0.25	0.26	0.25	0.25	0.26
<b>160</b>	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
<b>170</b>	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
<b>180</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

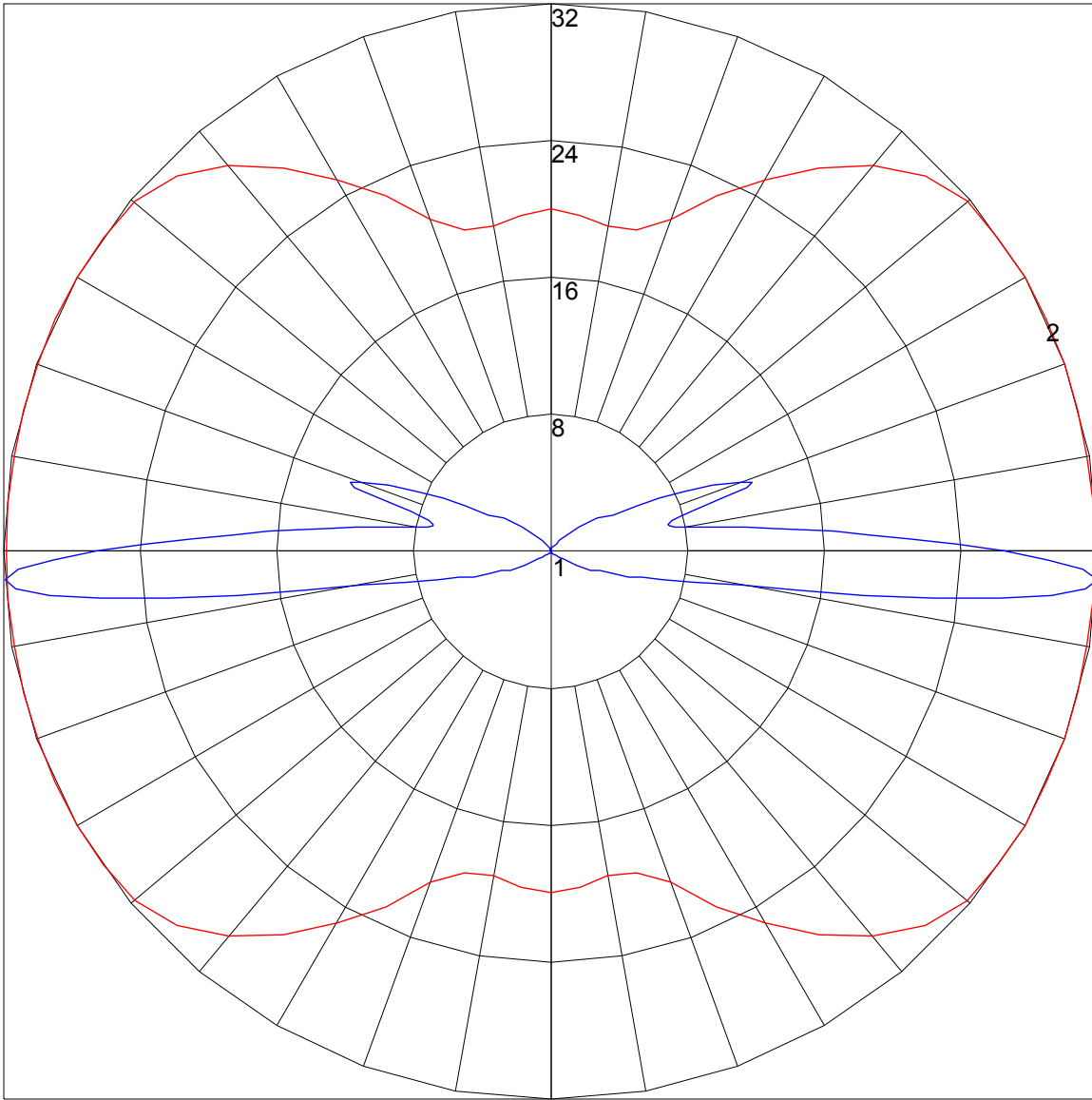
**COEFFICIENTS OF UTILIZATION**



**FLUX DISTRIBUTION**

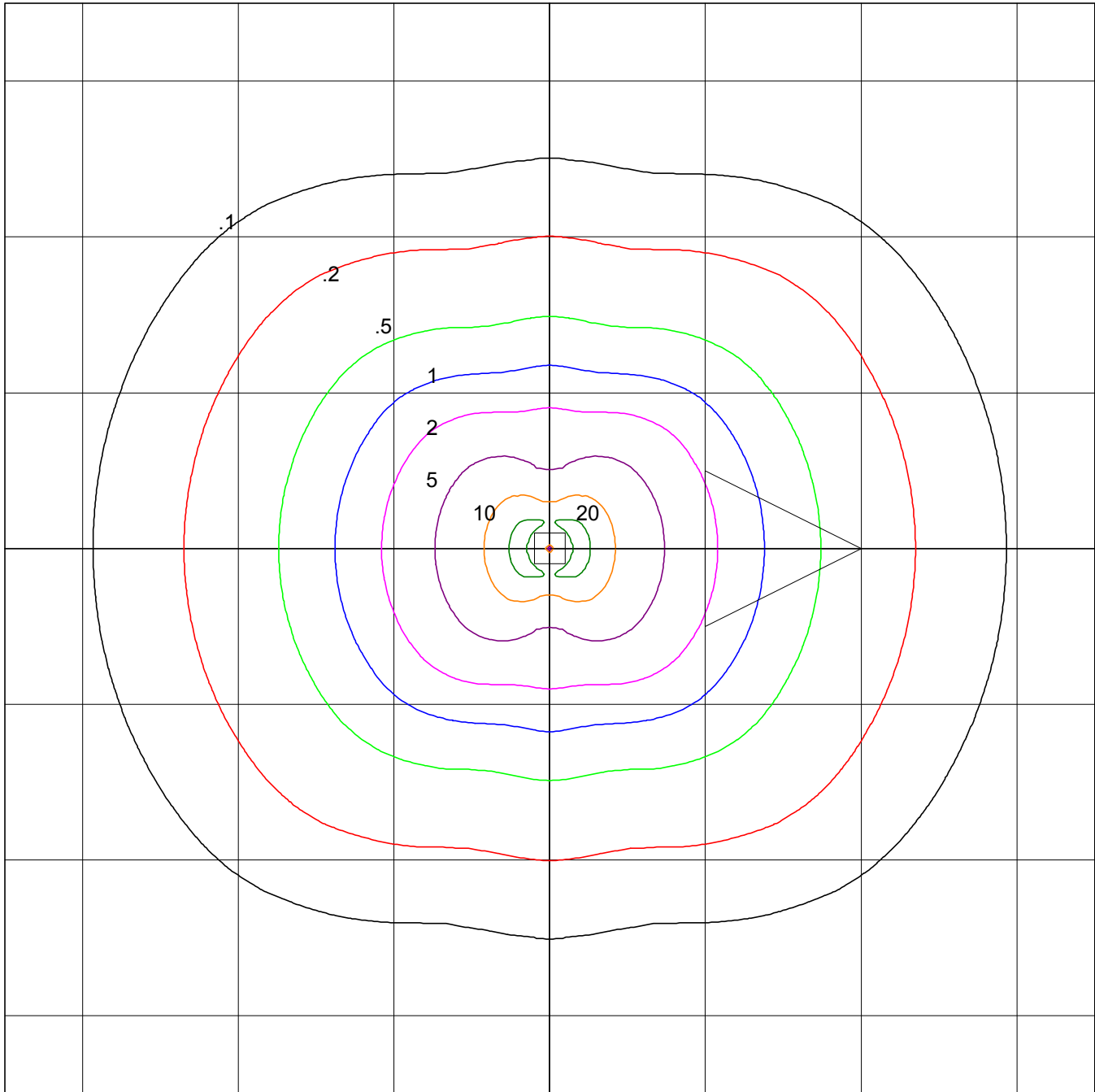
	Lumens	Percent Of Luminaire
Downward Street Side	16.9	24.8
Downward House Side	16.9	24.8
Downward Total	33.8	49.6
Upward Street Side	17.2	25.2
Upward House Side	17.2	25.2
Upward Total	34.4	50.5
Total Flux	68.2	100.2

POLAR GRAPH



Maximum Candela = 32.25 Located At Horizontal Angle = 30, Vertical Angle = 87  
# 1 - Vertical Plane Through Horizontal Angles (30 - 210) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (87) (Through Max. Cd.)

# Photometric Test Report

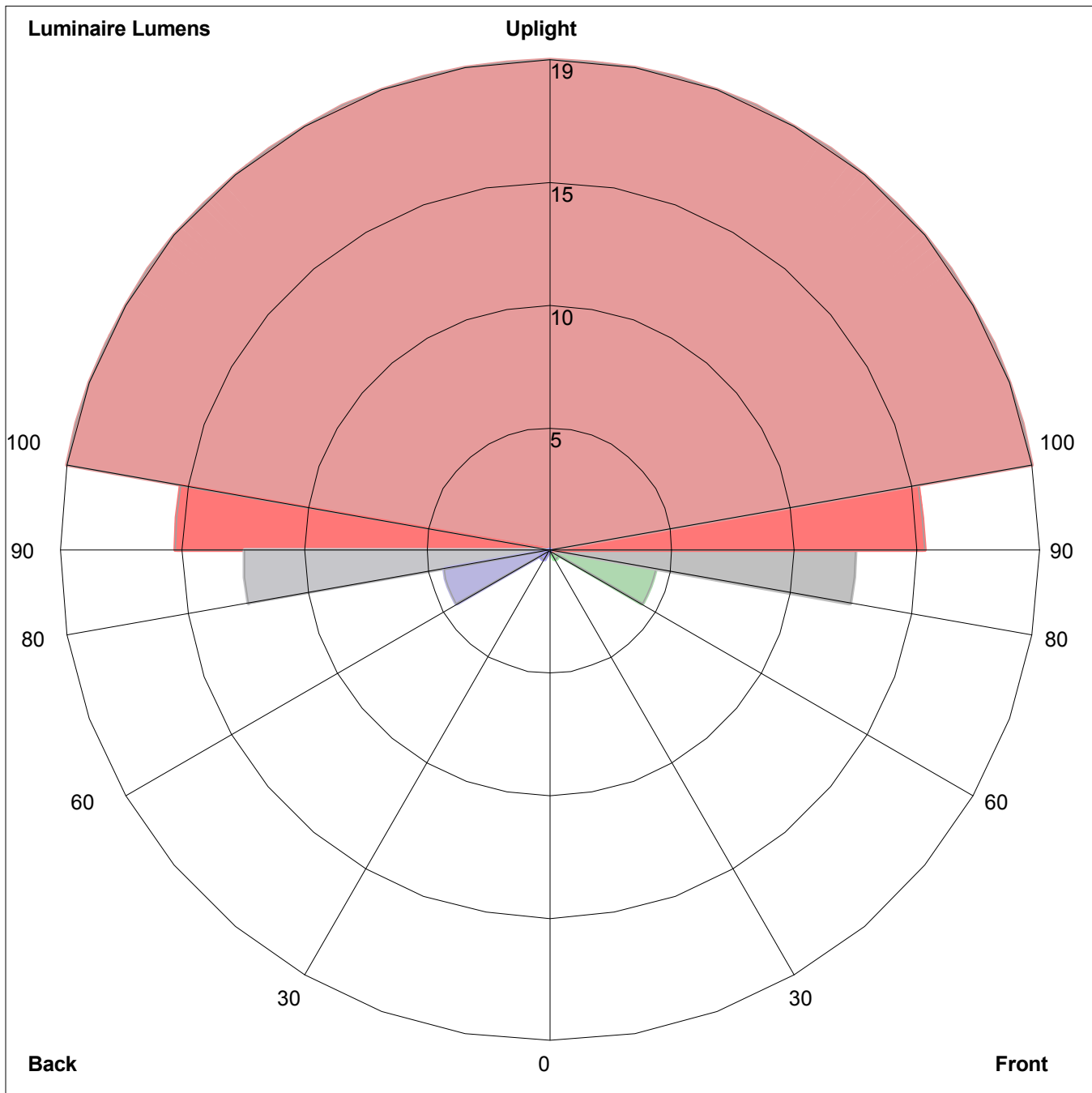


Vista Professional Outdoor Lighting  
1181-X-F-30-A-MV-ND  
Marker Light, F-Full 360° Distribution

Horizontal Footcandles  
Scale: 1 Inch = 1 Ft.  
Light Loss Factor = 1.00  
Lumens Per Lamp = N.A. (absolute photometry)  
Luminaire Lumens = 68  
Mounting Height = 0.08 Ft  
Maximum Calculated Value = 31.39 Fc  
Arrangement: Single



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=0.0, Medium=0.4, High=4.3, Very High=12.1  
Back: Low=0.0, Medium=0.4, High=4.3, Very High=12.1  
Uplight: Low=14.9, High=19.5

BUG Rating : B0-U2-G1