

REPORT NUMBER: ITL89606-GONIOPHOTOMETRY

PAGE: 1 OF 11

ISSUE DATE: 09/19/17

PREPARED FOR: THE FLAG COMPANY INC.

ADDRESS: 3600 CANTRELL INDUSTRIAL COURT
ACWORTH, GA 30101

CATALOG NUMBER: FLAGPOLE BEACON (DOWN LIGHTING SYSTEM)

LUMINAIRE: CAST DIFFUSE METAL MOUNTING BASE, SPUN BRASS COLORED SPHERICAL METAL HOUSING, 2-PIECE MOLDED BLACK PLASTIC LAMP MOUNTING FRAME.

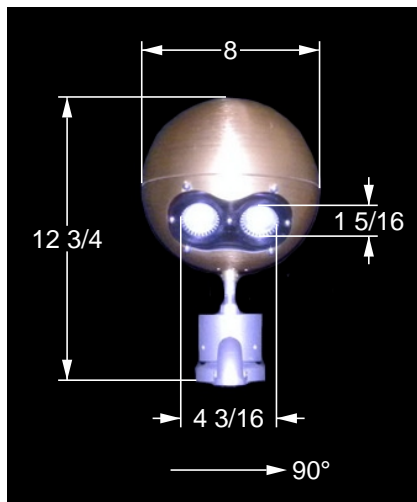
LAMPS: TWO 4-WATT MR-16 STYLE GU-5.3 BASE LED LAMPS, DAUER LED LED-MR16-4XBD-WW-40, AIMED 35-DEGREES BELOW THE HORIZON.

INPUT ELECTRICAL: 12.0 VOLTS, 7.82 WATTS, 0.652 AMPS

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (12VDC) TO THE LAMPS.

TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 35.0 FEET



THIS REPORT WITH THE USE OF THE NVLAP LOGO SHALL NOT BE USED BY THE CLIENT TO CLAIM PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NVLAP, NIST, OR ANY AGENCY OF THE FEDERAL GOVERNMENT.

Checked	<i>N WHITE</i> TECHNICIAN
Approved	<i>R BERGIN</i> LIGHTING ENGINEER



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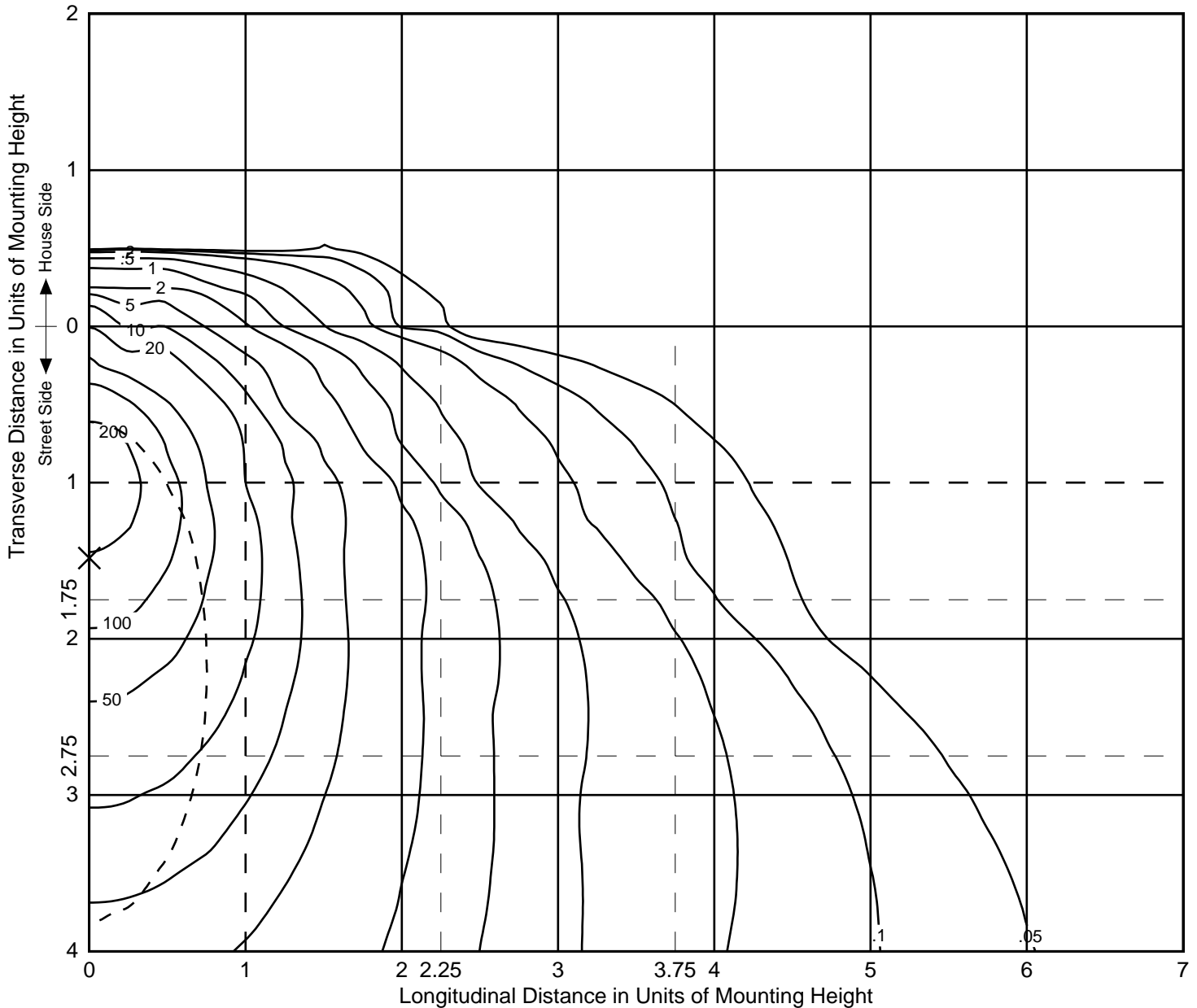
ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINATION
 Values based on 1-foot mounting height

IES Classification: (does not classify)

Cutoff Classification (deprecated): Noncutoff

- - - - - 1/2 Maximum Candela trace

× Maximum Candela point



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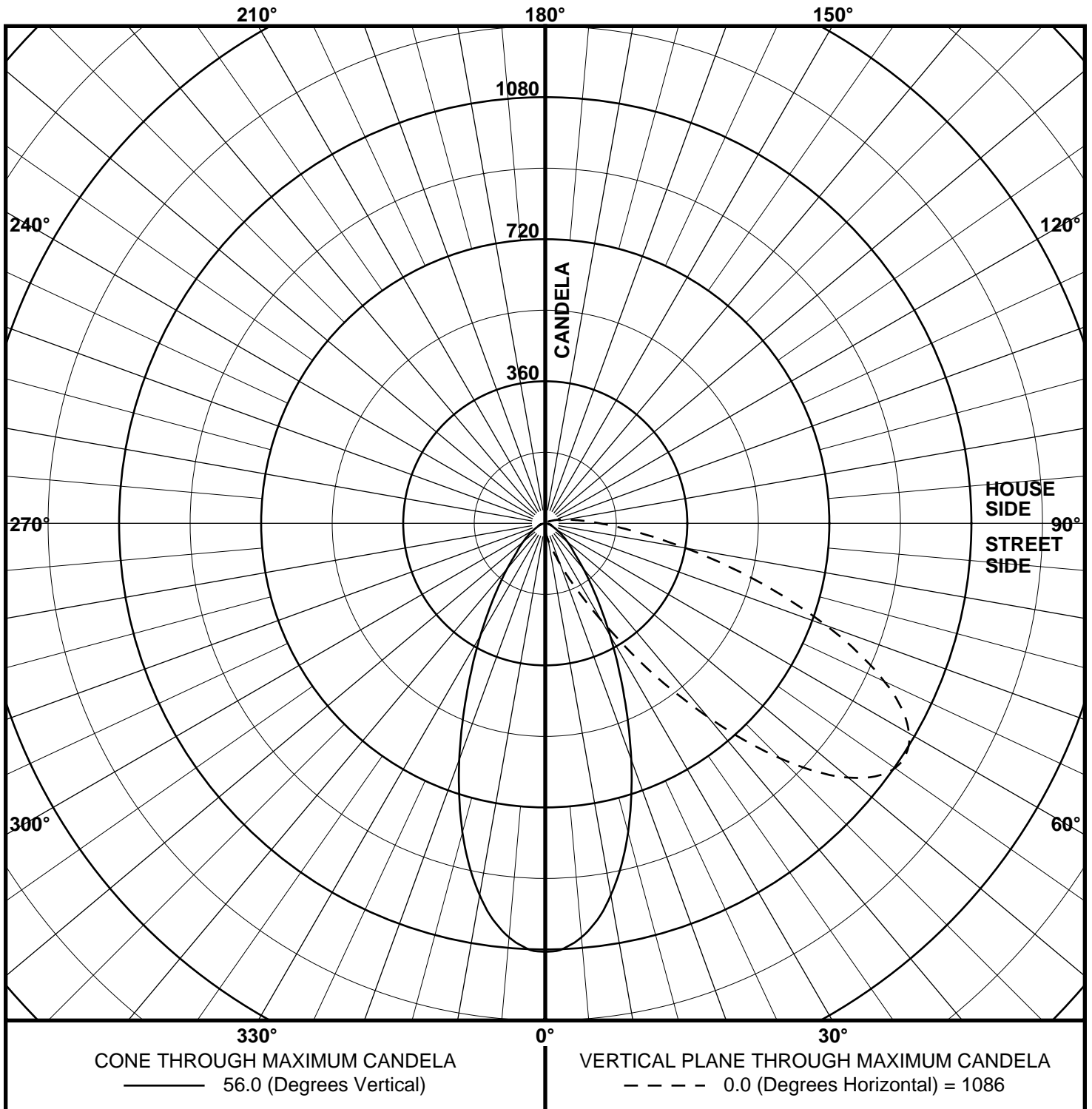
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MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA



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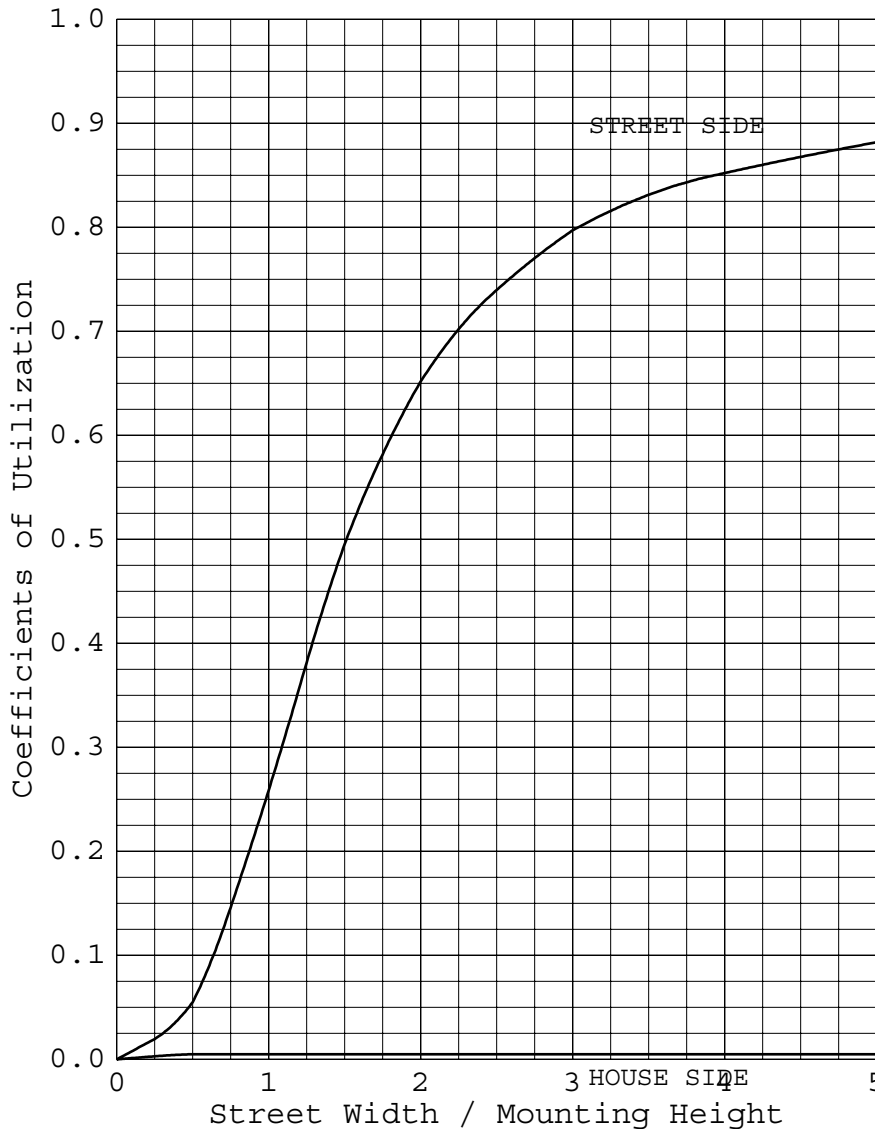
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COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	558	95.1
DOWNWARD HOUSE SIDE	3	0.5
DOWNWARD TOTAL	561	95.6
UPWARD STREET SIDE	26	4.4
UPWARD HOUSE SIDE	0	0.0
UPWARD TOTAL	26	4.4
TOTAL FLUX	586	100.0

EFFICACY = 74.9 lm/W

ALL CANDELA AND LUMENS IN THIS REPORT ARE BASED ON ABSOLUTE PHOTOMETRY. THE COEFFICIENT OF UTILIZATION VALUES ARE BASED ON THE TOTAL ABSOLUTE LUMEN OUTPUT OF THIS LUMINAIRE SAMPLE.



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BUG Rating			B0	U2	G1	
Zonal Summary			Zone Ratings			
		Lumens	% of Fixture	B	U	G
Forward		558	95.1			
FL	(0° – 30°)	25.2	4.3			
FM	(30° – 60°)	289.8	49.4			
FH	(60° – 80°)	205.0	35.0			G0
FVH	(80° – 90°)	38.0	6.5			G1
Backward		3	0.5			
BL	(0° – 30°)	1.9	0.3	B0		
BM	(30° – 60°)	1.0	0.2	B0		
BH	(60° – 80°)	0.0	0.0	B0		G0
BVH	(80° – 90°)	0.0	0.0			G0
Upward		26	4.4			
UL	(90° – 100°)	16.2	2.8		U2	
UH	(100° – 180°)	9.3	1.6		U1	
Trapped Light		0	0.0			
Total Flux		586	100.0			

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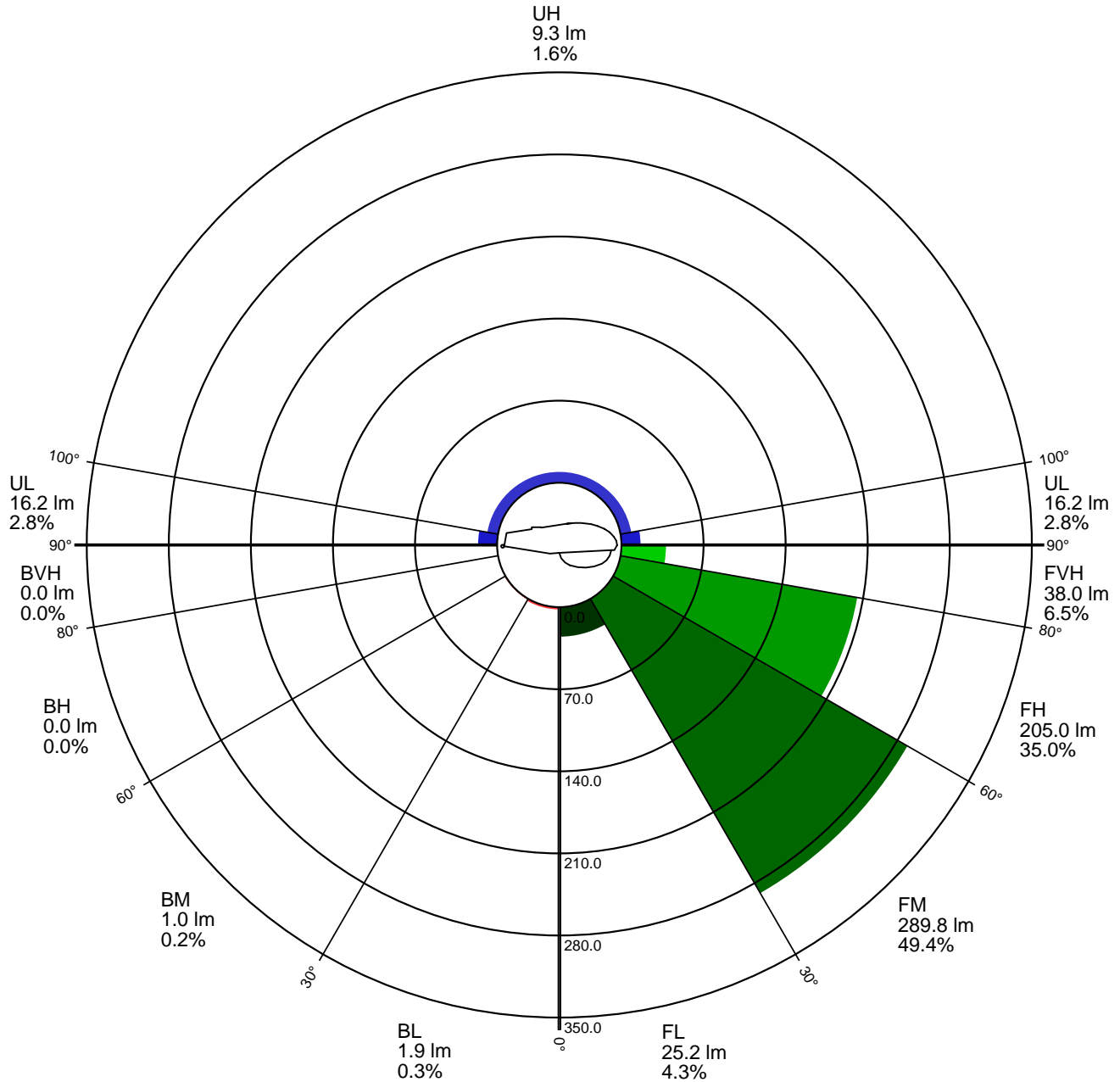
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Zonal Lumen Summary

(Linear scale)



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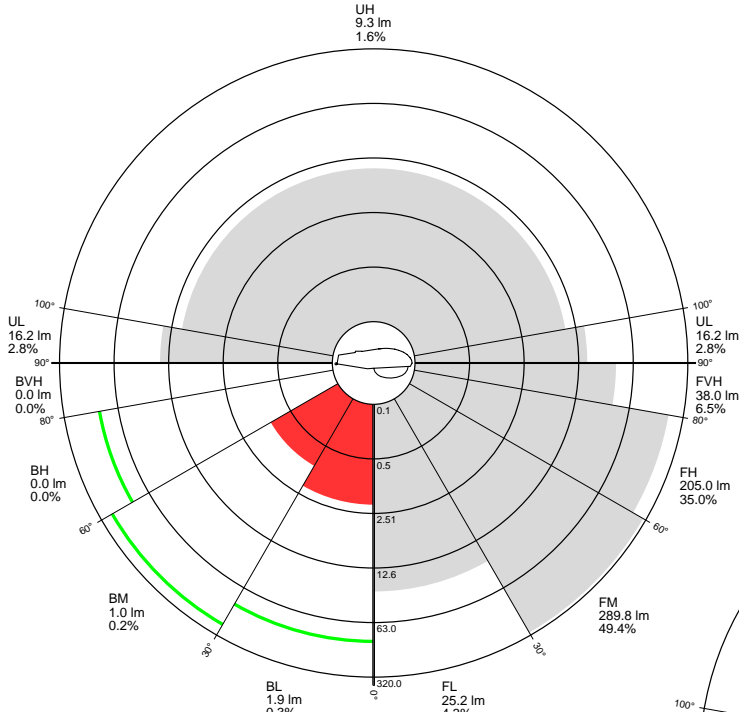
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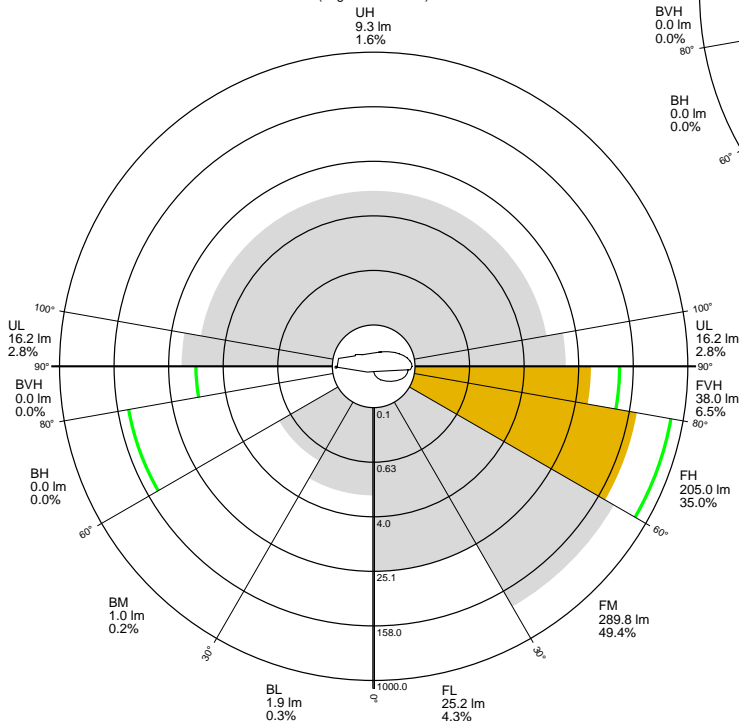
Backlight Rating Details

(Logarithmic scale)



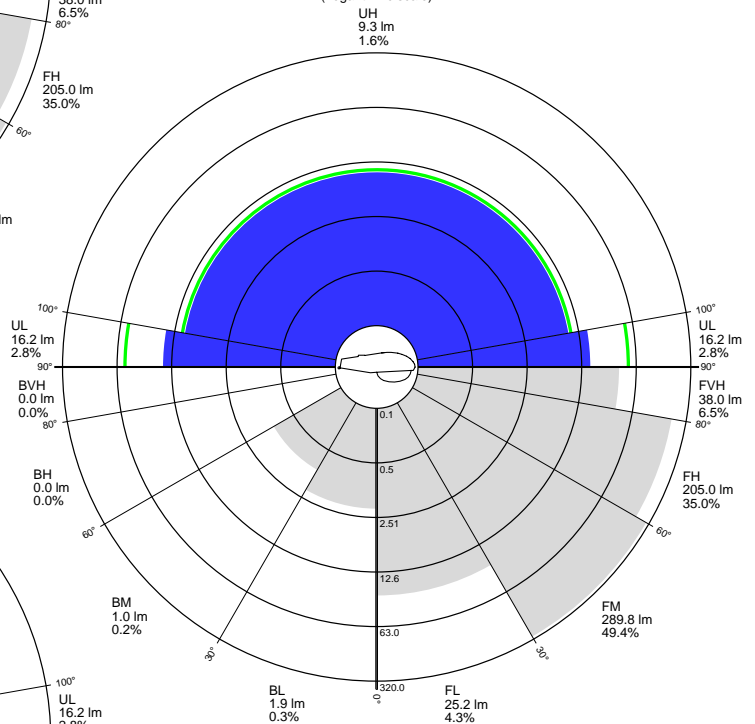
Glare Rating Details

(Logarithmic scale)



Uplight Rating Details

(Logarithmic scale)





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CANDELA TABULATION

	LATERAL ANGLE											
	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
	3.	3.	3.	3.	3.	3.	3.	3.	3.	3.	3.	
	13.	13.	13.	13.	13.	13.	12.	12.	12.	12.	12.	
	34.	34.	34.	34.	34.	33.	33.	33.	32.	32.	31.	
	86.	87.	86.	85.	85.	84.	84.	82.	82.	80.	78.	
	111.	111.	109.	108.	108.	106.	106.	103.	103.	100.	99.	
	138.	141.	139.	137.	137.	135.	135.	131.	130.	127.	123.	
	176.	179.	176.	177.	174.	171.	171.	166.	165.	161.	155.	
	224.	227.	224.	225.	222.	217.	216.	210.	209.	201.	196.	
V	82.5	285.	288.	284.	285.	281.	275.	274.	265.	263.	256.	247.
E	80.0	360.	362.	357.	354.	352.	346.	343.	332.	329.	319.	308.
R	77.5	449.	450.	444.	440.	436.	429.	425.	412.	404.	394.	381.
T	75.0	547.	549.	541.	538.	531.	525.	518.	503.	488.	479.	464.
I	72.5	651.	655.	647.	638.	635.	629.	619.	601.	585.	571.	556.
C	70.0	758.	764.	755.	746.	741.	733.	717.	702.	684.	668.	649.
A	69.0	800.	806.	797.	788.	782.	774.	757.	742.	724.	706.	686.
L	68.0	840.	847.	839.	828.	822.	813.	797.	781.	761.	743.	722.
	67.0	878.	885.	877.	866.	860.	851.	835.	818.	798.	778.	756.
A	66.0	915.	917.	914.	902.	896.	886.	869.	853.	832.	812.	789.
N	65.0	947.	950.	947.	935.	928.	918.	902.	884.	863.	843.	819.
G	64.5	965.	966.	964.	952.	945.	933.	918.	900.	878.	858.	834.
L	64.0	980.	981.	978.	967.	959.	948.	932.	914.	892.	872.	847.
E	63.5	994.	995.	992.	980.	973.	961.	946.	928.	905.	885.	861.
	60.0	1064.	1064.	1063.	1051.	1043.	1031.	1014.	998.	977.	955.	929.
	56.0<<	1086.	1085.	1082.	1074.	1065.	1053.	1039.	1022.	1004.	981.	957.
	55.0	1082.	1081.	1077.	1069.	1060.	1049.	1036.	1018.	1001.	979.	955.
	50.0	1003.	1004.	999.	991.	986.	973.	964.	946.	930.	911.	890.
	45.0	843.	848.	842.	836.	832.	820.	815.	799.	787.	774.	755.
	40.0	640.	647.	642.	638.	636.	627.	625.	611.	608.	596.	581.
	35.0	447.	447.	447.	445.	441.	433.	432.	427.	423.	412.	405.
	30.0	284.	286.	285.	285.	284.	279.	278.	276.	273.	267.	263.
	25.0	176.	177.	177.	176.	176.	173.	173.	172.	171.	168.	165.
	20.0	109.	109.	109.	108.	109.	108.	107.	107.	106.	105.	104.
	15.0	69.	68.	68.	68.	68.	67.	67.	66.	64.	63.	62.
	10.0	45.	44.	44.	44.	44.	44.	44.	44.	43.	43.	42.
	5.0	29.	29.	28.	29.	28.	28.	28.	28.	28.	28.	28.
	0.0	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.

||
PLANE OF MAXIMUM CANDELA

CONE OF MAXIMUM CANDELA

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CANDELA TABULATION

	LATERAL ANGLE											
	STREET SIDE	12.5	15.0	17.5	20.0	22.5	25.0	30.0	35.0	40.0	45.0	67.5
	180.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	175.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	165.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	155.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	145.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	135.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	125.0	3.	3.	2.	2.	2.	1.	1.	0.	0.	0.	0.
	115.0	11.	11.	10.	9.	9.	8.	6.	5.	3.	2.	0.
	105.0	30.	28.	27.	24.	23.	21.	16.	13.	10.	7.	0.
	95.0	74.	69.	64.	58.	53.	47.	37.	29.	21.	16.	1.
	92.5	93.	86.	80.	72.	66.	58.	45.	35.	25.	18.	2.
	90.0	117.	107.	99.	89.	80.	71.	55.	41.	30.	22.	2.
	87.5	147.	134.	123.	110.	97.	86.	66.	49.	36.	26.	3.
	85.0	184.	167.	152.	136.	119.	104.	79.	59.	42.	30.	4.
V	82.5	230.	207.	188.	166.	145.	125.	94.	69.	49.	34.	5.
E	80.0	286.	257.	232.	203.	176.	151.	111.	80.	57.	40.	6.
R	77.5	352.	314.	280.	245.	212.	181.	130.	93.	65.	45.	7.
T	75.0	427.	380.	334.	294.	253.	215.	153.	106.	74.	52.	9.
I	72.5	510.	454.	398.	348.	299.	252.	178.	122.	84.	58.	10.
C	70.0	592.	530.	465.	405.	348.	292.	204.	139.	94.	65.	11.
A	69.0	626.	561.	492.	429.	368.	309.	215.	146.	99.	68.	12.
L	68.0	659.	592.	518.	451.	387.	325.	227.	154.	103.	71.	12.
	67.0	691.	621.	545.	474.	406.	341.	238.	161.	108.	73.	13.
A	66.0	723.	649.	570.	496.	424.	357.	249.	168.	112.	76.	13.
N	65.0	751.	675.	593.	517.	442.	372.	259.	175.	117.	79.	14.
G	64.5	765.	689.	606.	528.	452.	380.	264.	178.	119.	80.	14.
L	64.0	778.	701.	617.	538.	460.	387.	269.	181.	121.	82.	15.
E	63.5	791.	713.	630.	547.	469.	395.	274.	185.	123.	83.	15.
	60.0	858.	779.	693.	604.	518.	437.	305.	206.	137.	92.	17.
	56.0<<	889.	811.	725.	637.	549.	467.	329.	224.	150.	101.	20.
	55.0	888.	811.	725.	639.	552.	470.	332.	226.	153.	103.	20.
	50.0	834.	765.	689.	612.	534.	461.	333.	232.	159.	110.	24.
	45.0	711.	653.	597.	532.	471.	413.	306.	221.	156.	111.	27.
	40.0	550.	508.	470.	423.	380.	336.	258.	194.	143.	106.	29.
	35.0	387.	360.	338.	309.	282.	254.	203.	160.	123.	95.	31.
	30.0	255.	240.	229.	212.	197.	181.	152.	126.	101.	82.	31.
	25.0	162.	155.	150.	141.	134.	126.	109.	93.	76.	65.	31.
	20.0	101.	94.	90.	81.	73.	64.	48.	40.	34.	33.	25.
	15.0	60.	56.	51.	45.	40.	37.	31.	27.	24.	22.	14.
	10.0	40.	40.	38.	36.	34.	32.	28.	24.	21.	19.	13.
	5.0	28.	28.	27.	27.	26.	26.	25.	24.	23.	21.	17.
	0.0	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.

CONE OF MAXIMUM CANDELA

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CANDELA TABULATION

	HOUSE SIDE		LATERAL ANGLE			
	90.0	112.5	135.0	157.5	180.0	
180.0	0.	0.	0.	0.	0.	
175.0	0.	0.	0.	0.	0.	
165.0	0.	0.	0.	0.	0.	
155.0	0.	0.	0.	0.	0.	
145.0	0.	0.	0.	0.	0.	
135.0	0.	0.	0.	0.	0.	
125.0	0.	0.	0.	0.	0.	
115.0	0.	0.	0.	0.	0.	
105.0	0.	0.	0.	0.	0.	
95.0	0.	0.	0.	0.	0.	
92.5	0.	0.	0.	0.	0.	
90.0	0.	0.	0.	0.	0.	
87.5	0.	0.	0.	0.	0.	
85.0	0.	0.	0.	0.	0.	
V 82.5	0.	0.	0.	0.	0.	
E 80.0	0.	0.	0.	0.	0.	
R 77.5	0.	0.	0.	0.	0.	
T 75.0	0.	0.	0.	0.	0.	
I 72.5	0.	0.	0.	0.	0.	
C 70.0	0.	0.	0.	0.	0.	
A 69.0	0.	0.	0.	0.	0.	
L 68.0	0.	0.	0.	0.	0.	
67.0	0.	0.	0.	0.	0.	
A 66.0	1.	0.	0.	0.	0.	
N 65.0	1.	0.	0.	0.	0.	
G 64.5	1.	0.	0.	0.	0.	
L 64.0	1.	0.	0.	0.	0.	
E 63.5	1.	0.	0.	0.	0.	
60.0	2.	0.	0.	0.	0.	
56.0<<	3.	0.	0.	0.	0.	
55.0	3.	0.	0.	0.	0.	
50.0	4.	0.	0.	0.	0.	
45.0	6.	0.	0.	0.	0.	
40.0	8.	1.	0.	0.	0.	
35.0	10.	2.	0.	0.	0.	
30.0	12.	3.	0.	0.	0.	
25.0	14.	6.	1.	0.	0.	
20.0	14.	7.	2.	1.	0.	
15.0	10.	6.	3.	2.	1.	
10.0	9.	7.	5.	5.	7.	
5.0	14.	12.	12.	12.	12.	
0.0	19.	19.	19.	19.	19.	

CONE OF MAXIMUM CANDELA



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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	0
5- 10	1
10- 15	2
15- 20	3
20- 25	7
25- 30	13
30- 35	21
35- 40	32
40- 45	44
45- 50	57
50- 55	67
55- 60	70
60- 65	67
65- 70	58
70- 75	46
75- 80	33
80- 85	23
85- 90	15
90- 95	10
95-100	6
100-105	4
105-110	2
110-115	1
115-120	1
120-125	0
125-130	0
130-135	0
135-140	0
140-145	0
145-150	0
150-155	0
155-160	0
160-165	0
165-170	0
170-175	0
175-180	0

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	2
0- 20	7
0- 30	27
0- 40	79
0- 50	181
0- 60	318
0- 70	444
0- 80	523
0- 90	561
0-100	577
0-110	584
0-120	586
0-130	586
0-140	586
0-150	586
0-160	586
0-170	586
0-180	586