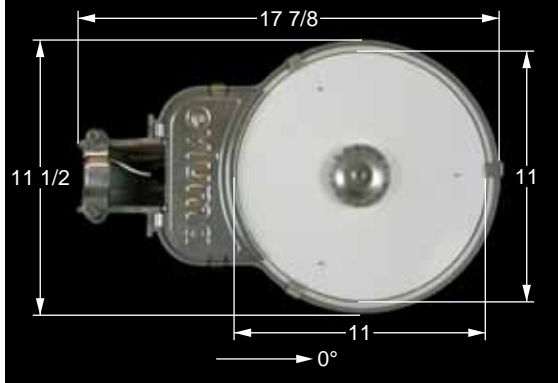


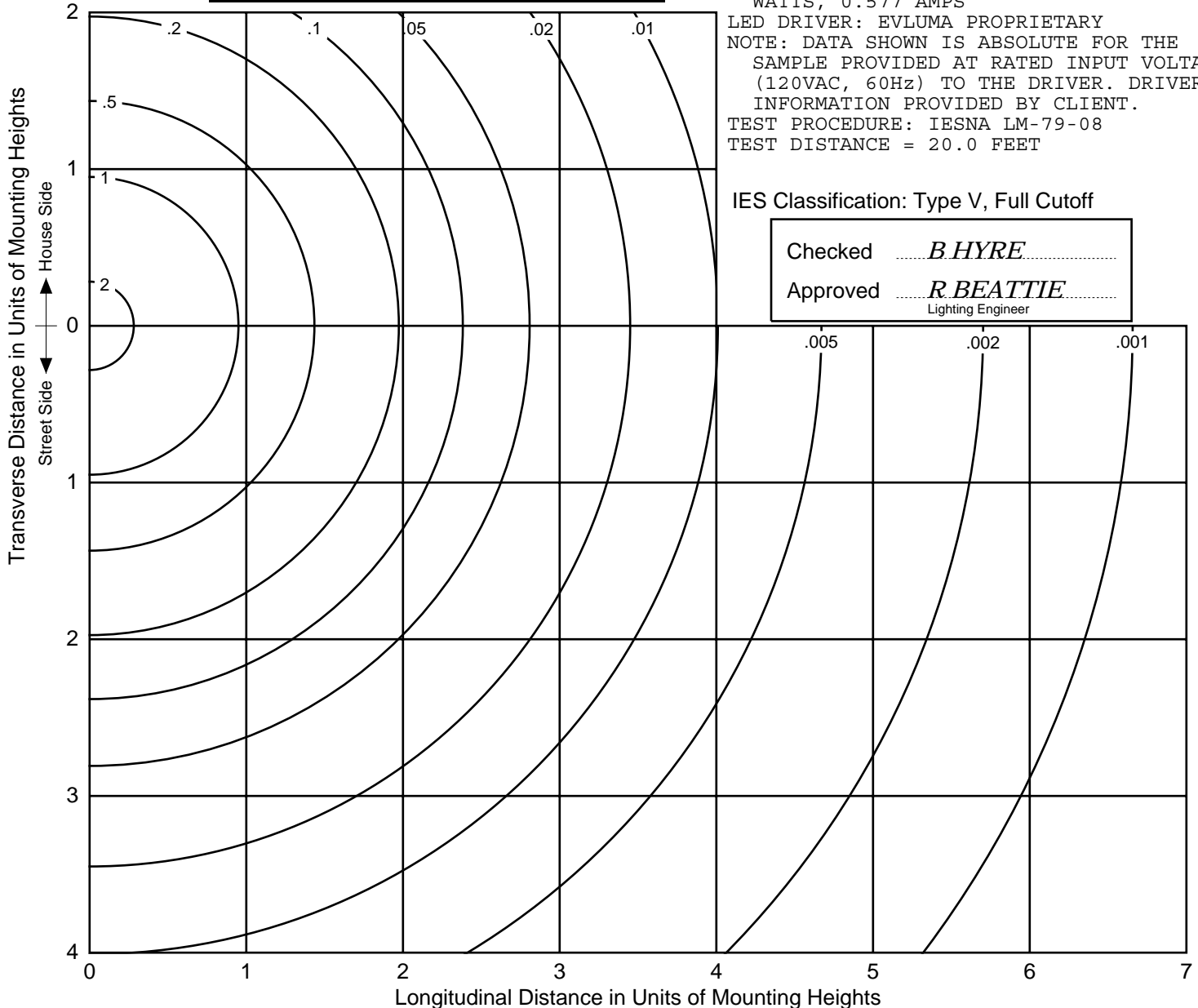
ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINATION
Values based on 25 foot mounting height.

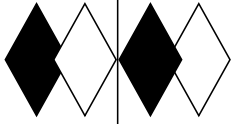


REPORT NUMBER: ITL87423-GONIOPHOTOMETRY
 ISSUE DATE: 05/27/16 PAGE: 1 OF 7
 PREPARED FOR: EVLUMA
 CATALOG NUMBER: AMAX-70-3K-6-V-C-S3-0
 LUMINAIRE: CAST FINNED METAL HOUSING WITH FORMED METAL ACCESS DOOR, 32 LEDS, WHITE FIBROUS REFLECTOR, FABRICATED MULTI-FACETED SEGMENTED METAL CENTER REFLECTOR WITH PREMIUM SPECULAR FINISH, CLEAR MICRO-PRISMATIC FLAT GLASS LENS, LENS PRISMS OUT.
 LAMPS: THIRTY-TWO WHITE LIGHT EMITTING DIODES (LEDS) EACH WITH CLEAR HEMISPHERICAL INTEGRAL LENS, VERTICAL BASE-UP POSITION.
 INPUT ELECTRICAL: 120.0 VOLTS, 68.9 WATTS, 0.577 AMPS
 LED DRIVER: EVLUMA PROPRIETARY
 NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120VAC, 60Hz) TO THE DRIVER. DRIVER INFORMATION PROVIDED BY CLIENT.
 TEST PROCEDURE: IESNA LM-79-08
 TEST DISTANCE = 20.0 FEET

IES Classification: Type V, Full Cutoff

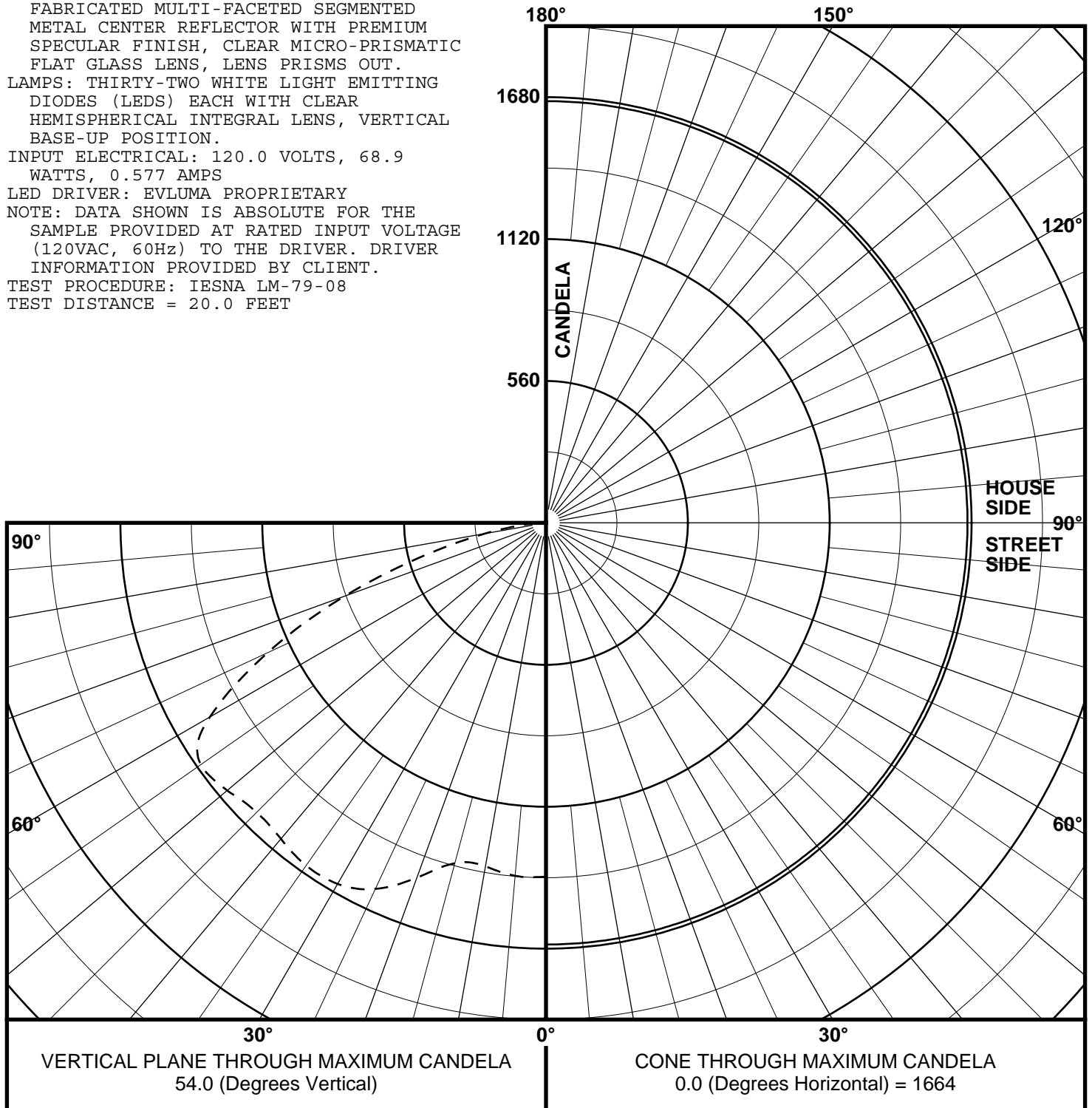
Checked	<i>B. HYRE</i>
Approved	<i>R. BEATTIE</i> Lighting Engineer

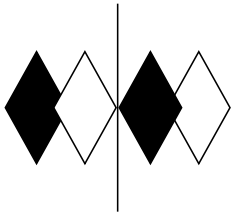




REPORT NUMBER: ITL87423-GONIOPHOTOMETRY
 ISSUE DATE: 05/27/16 PAGE: 2 OF 7
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 CATALOG NUMBER: AMAX-70-3K-6-V-C-S3-0
 LUMINAIRE: CAST FINNED METAL HOUSING
 WITH FORMED METAL ACCESS DOOR, 32
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 METAL CENTER REFLECTOR WITH PREMIUM
 SPECULAR FINISH, CLEAR MICRO-PRISMATIC
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 INPUT ELECTRICAL: 120.0 VOLTS, 68.9
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 LED DRIVER: EVLUMA PROPRIETARY
 NOTE: DATA SHOWN IS ABSOLUTE FOR THE
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 (120VAC, 60Hz) TO THE DRIVER. DRIVER
 INFORMATION PROVIDED BY CLIENT.
 TEST PROCEDURE: IESNA LM-79-08
 TEST DISTANCE = 20.0 FEET

MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA

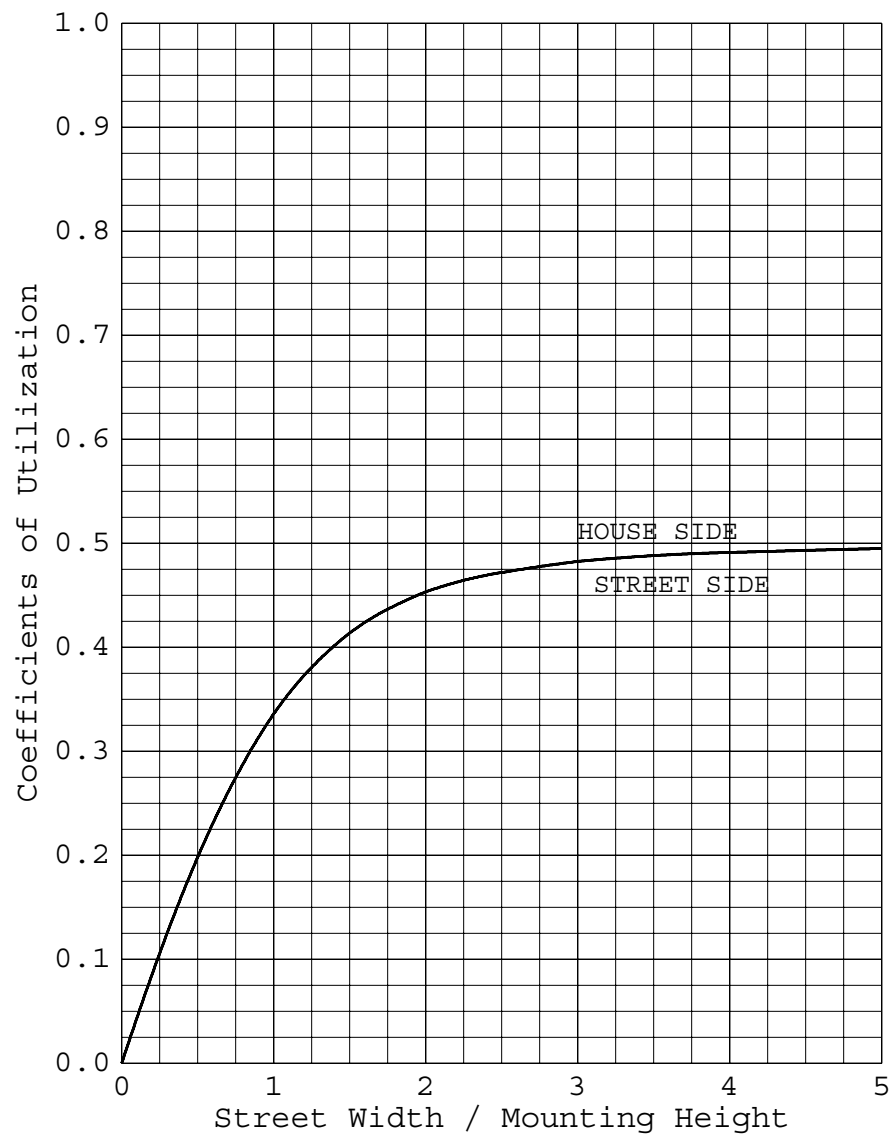




REPORT NUMBER: ITL87423-GONIOPHOTOMETRY
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COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	3433	50.0
DOWNWARD HOUSE SIDE	3433	50.0
DOWNWARD TOTAL	6866	100.0
UPWARD STREET SIDE	0	0.0
UPWARD HOUSE SIDE	0	0.0
UPWARD TOTAL	0	0.0
TOTAL FLUX	6866	100.0

EFFICACY = 99.7 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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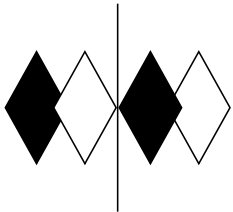
FLUX DISTRIBUTION BY SOLID ANGLE

(PER IESNA TM-15-11, LUMINAIRE CLASSIFICATION SYSTEM FOR OUTDOOR LUMINAIRES)

	LUMENS	PERCENT OF FIXTURE	BUG ZONE RATINGS
FORWARD LIGHT	3433.	50.0	
FL (0- 30)	634.3	9.2	
FM (30- 60)	1878.7	27.4	
FH (60- 80)	866.7	12.6	G1
FVH(80- 90)	53.4	0.8	G1
BACK LIGHT	3433.	50.0	
BL (0- 30)	634.3	9.2	B2
BM (30- 60)	1878.7	27.4	B2
BH (60- 80)	866.7	12.6	B2 G1
BVH(80- 90)	53.4	0.8	G1
UPLIGHT	0.	0.0	
UL (90-100)	0.0	0.0	U0
UH (100-180)	0.0	0.0	U0
TRAPPED LIGHT	0.	0.0	
TOTAL FLUX	6866.	100.0	

BACKLIGHT, UPLIGHT, AND GLARE (BUG) RATINGS
(PER ADDENDUM A FOR IESNA TM-15-11)

BUG RATING: B2 U0 G1



REPORT NUMBER: ITL87423-GONIOPHOTOMETRY
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CANDELA TABULATION

TYPE V

	90.0	0.
	87.5	35.
	85.0	84.
	82.5	152.
	80.0	243.
	77.5	357.
	75.0	496.
	72.5	661.
	70.0	846.
	67.5	1033.
	65.0	1213.
	62.5	1383.
V	60.0	1532.
E	57.5	1632.
R	55.0	1663.
T	54.0 <<	1664.
I	52.5	1659.
C	50.0	1643.
A	47.5	1624.
L	45.0	1616.
	42.5	1617.
A	40.0	1628.
N	37.5	1642.
G	35.0	1651.
L	32.5	1652.
E	30.0	1645.
	27.5	1627.
	25.0	1594.
	22.5	1547.
	20.0	1490.
	17.5	1432.
	15.0	1391.
	12.5	1373.
	10.0	1376.
	7.5	1389.
	5.0	1398.
	2.5	1400.
	0.0	1396.

CONE OF MAXIMUM CANDELA



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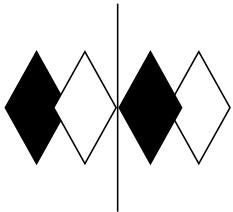
PAGE: 6 OF 7

5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	33
5- 10	99
10- 15	164
15- 20	237
20- 25	324
25- 30	411
30- 35	486
35- 40	547
40- 45	600
45- 50	657
50- 55	720
55- 60	746
60- 65	669
65- 70	522
70- 75	348
75- 80	194
80- 85	86
85- 90	21

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	133
0- 20	533
0- 30	1269
0- 40	2302
0- 50	3559
0- 60	5026
0- 70	6217
0- 80	6759
0- 90	6866



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ISSUE DATE: 05/27/16
PREPARED FOR: EVLUMA

PAGE: 7 OF 7

ADDRESS: 3600 LIND AVE. SW
SUITE 140
RENTON, WA 98057

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REPORT NUMBER: ITL87423-SPHERE
DATE: 06/01/16
PREPARED FOR: EVLUMA
CATALOG NUMBER: AMAX-70-3K-6-V-C-S3-0

ADDRESS: 3600 LIND AVE. SW
SUITE 140
RENTON, WA 98057

LUMINAIRE: CAST FINNED METAL HOUSING WITH FORMED METAL ACCESS DOOR, 32 LEDS, WHITE FIBROUS REFLECTOR, FABRICATED MULTI-FACETED SEGMENTED METAL CENTER REFLECTOR WITH PREMIUM SPECULAR FINISH, CLEAR MICRO-PRISMATIC FLAT GLASS LENS, LENS PRISMS OUT.

LAMP: THIRTY-TWO WHITE LIGHT EMITTING DIODES (LEDS) EACH WITH CLEAR HEMISPHERICAL INTEGRAL LENS, VERTICAL BASE-UP POSITION.

DRIVER: EVLUMA PROPRIETARY

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120VAC, 60Hz) TO THE DRIVER. DRIVER INFORMATION PROVIDED BY CLIENT.

		Calibration Due:
INSTRUMENTS:	Associated Power Technologies APT5040 AC Power Source	N/A
	Yokogawa WT210 Digital Power Meter #6	12/07/16
	Ocean Optics QE65000 Spectroradiometer	04/19/17
	ITL 2.0m Diameter Integrating Sphere S20-2, 4PI Geometry	04/19/17

OBJECT OF TEST: Measure the Absolute Flux in lumens*, Spectral Power Distribution (SPD), Correlated Color Temperature (CCT), Color Rendering Index (CRIa,1-14), Chromaticity Coordinates (x,y; u',v'), ANSI C78.377 Duv, Total Radiant Flux*, Scotopic / Photopic Lumen Ratio, and electrical data including ANSI C82.77-2002 Power Factor (PF) and Total Harmonic Distortion (THD) to the test sample.

PROCEDURE: The test sample was provided by the customer and had an unknown number of operating hours. The test sample was mounted inside the integrating sphere and allowed to stabilize. After stabilization occurred, measurements were taken. In order to measure mean performance, multiple data sets were recorded and averaged. Readings were taken with the test sample operating at 120VAC input in a 25 +/-1 degree Celsius free air ambient and in accordance with IESNA LM-79-08. All data are traceable to the National Institute of Standards and Technology.

RESULTS: (continued subsequent pages)

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Checked	<u>N WHITE</u>
Approved	<u>P O'CONNOR</u> Sphere Lab Supervisor



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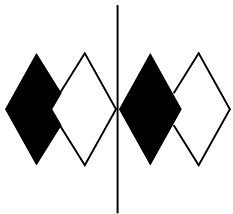
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 CATALOG NUMBER: AMAX-70-3K-6-V-C-S3-0

RESULTS:

PHOTOMETRIC	
Total Integrated Flux (lumens)	6866 *
SPECTRORADIOMETRIC	
Observer	CIE 1931 2 degree
Chromaticity Ordinate x	0.4423
Chromaticity Ordinate y	0.4134
Observer	CIE 1976 2 degree
Chromaticity Ordinate u'	0.2500
Chromaticity Ordinate v'	0.5258
Correlated Color Temp CCT (K)	2986
ANSI C78.377-2008 Duv	0.003
Total Radiant Flux (milliWatts)	19590 *
Scotopic / Photopic Lumen Ratio	1.206
ELECTRICAL	
Input Voltage (Volts AC)	120.0
Input Current (Amps AC)	0.577
Input Power (Watts)	69.0
Input Power Factor (%)	99.7
Input Current THD (%)	7.6
Input Voltage THD (%)	0.3
EFFICACY (lumens/Watt)	99.5

COLOR RENDERING INDICES		CRI
Ra (Average 1-8)		72
R1	Light greyish red	68
R2	Dark greyish yellow	79
R3	Strong yellowish green	91
R4	Moderate yellowish green	71
R5	Light bluish green	67
R6	Light blue	72
R7	Light violet	79
R8	Light reddish purple	46
R9	Strong red	-30
R10	Strong yellow	53
R11	Strong green	67
R12	Strong blue	48
R13	Light yellowish pink (skin)	69
R14	Moderate olive green (leaf)	94

*NOTE: The total lumen output shown on this report was obtained from photometric test ITL87423-GONIOPHOTOMETRY



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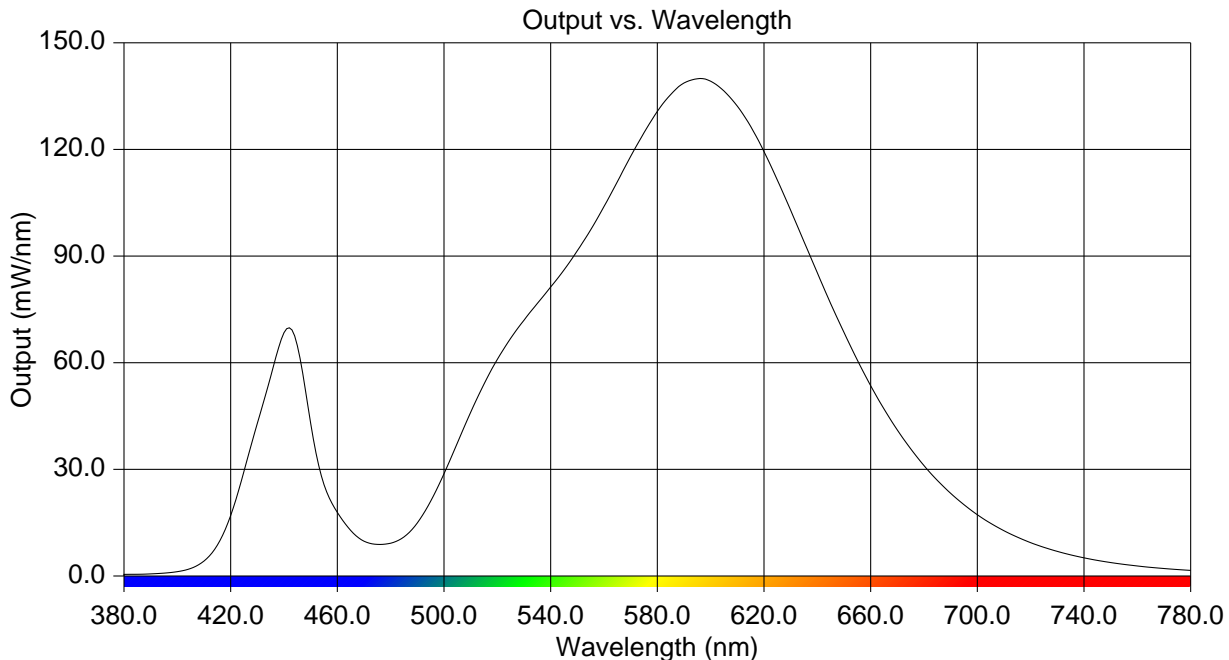
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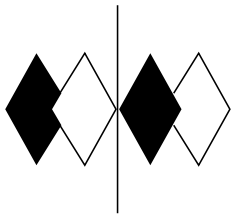
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RESULTS:

Wavelength	mW per nm	Wavelength	mW per nm	Wavelength	mW per nm
380	0.454	515	53.965	650	68.509
385	0.479	520	60.925	655	60.733
390	0.592	525	66.856	660	53.513
395	0.803	530	71.933	665	46.985
400	1.218	535	76.660	670	41.063
405	2.114	540	81.289	675	35.783
410	4.205	545	86.074	680	31.054
415	8.669	550	91.492	685	26.889
420	16.998	555	97.358	690	23.252
425	29.464	560	103.924	695	20.053
430	42.934	565	110.876	700	17.229
435	56.071	570	118.025	705	14.818
440	68.434	575	124.669	710	12.726
445	64.792	580	130.671	715	10.936
450	42.953	585	135.393	720	9.371
455	25.703	590	138.658	725	8.052
460	17.891	595	139.843	730	6.923
465	12.820	600	139.158	735	5.939
470	9.787	605	136.406	740	5.110
475	8.890	610	132.143	745	4.389
480	9.215	615	126.456	750	3.783
485	10.991	620	119.354	755	3.262
490	14.923	625	111.360	760	2.819
495	21.041	630	102.866	765	2.426
500	28.756	635	94.036	770	2.103
505	37.387	640	85.281	775	1.819
510	46.036	645	76.602	780	1.574





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CIE Chromaticity Diagram

