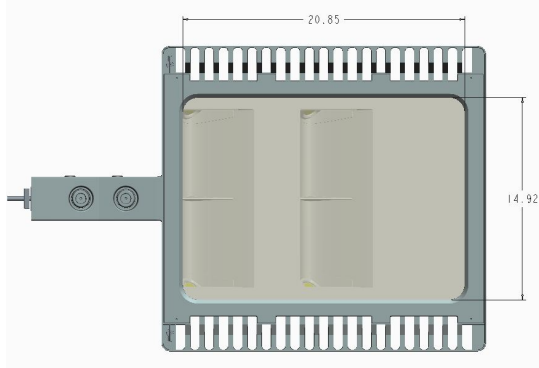


ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINATION

Values based on 25 foot mounting height.



REPORT NUMBER: RAB01807

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PAGE: 1 OF 9

DATE SAMPLE TESTED: 03/28/16

PREPARED FOR: RAB LIGHTING INC.

CATALOG NUMBER: ALED2T260/D10 -

ALED2T260SF/D10 - WPLED2T260/D10 -

WPLED2T260FX/D10 (TYPE II)

LUMINAIRE: CAST FINNED METAL HOUSING, 4 CHIP ON BOARD LIGHT EMITTING DIODES, MOLDED PLASTIC REFLECTOR WITH SPECULAR FINISH, CLEAR GLASS LENS IN CAST BRONZE PAINTED METAL FRAME.

LAMPS: FOUR WHITE LIGHT EMITTING DIODES (LEDs)

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.

TOTAL INPUT WATTS = 264.54 W AT 120.0 VAC.

LED DRIVER: RD-240-S2200-D

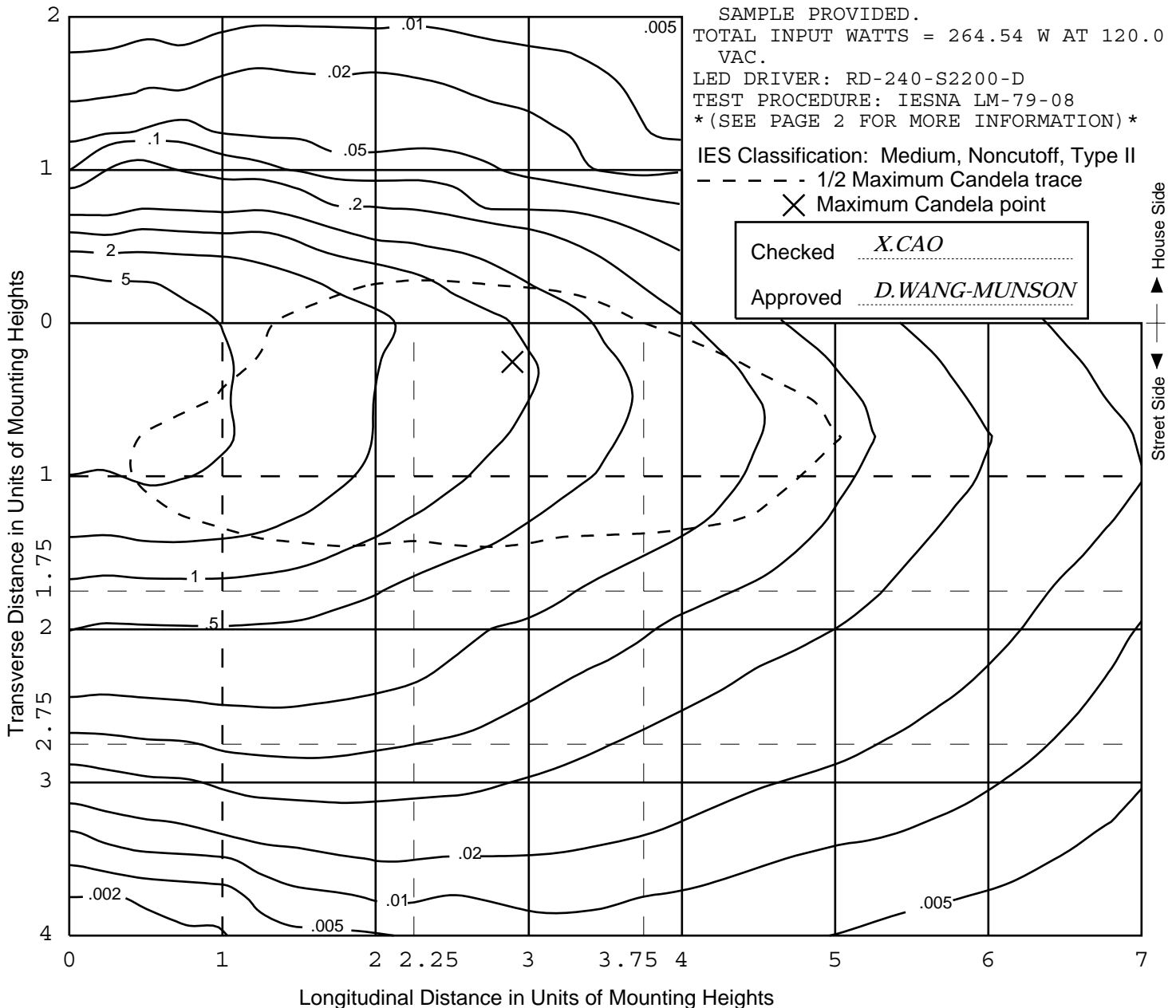
TEST PROCEDURE: IESNA LM-79-08

(SEE PAGE 2 FOR MORE INFORMATION)

IES Classification: Medium, Noncutoff, Type II

--- 1/2 Maximum Candela trace

X Maximum Candela point



REPORT NUMBER: RAB01807
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PREPARED FOR: RAB LIGHTING INC.

PAGE: 2 OF 9
DATE SAMPLE TESTED: 03/28/16

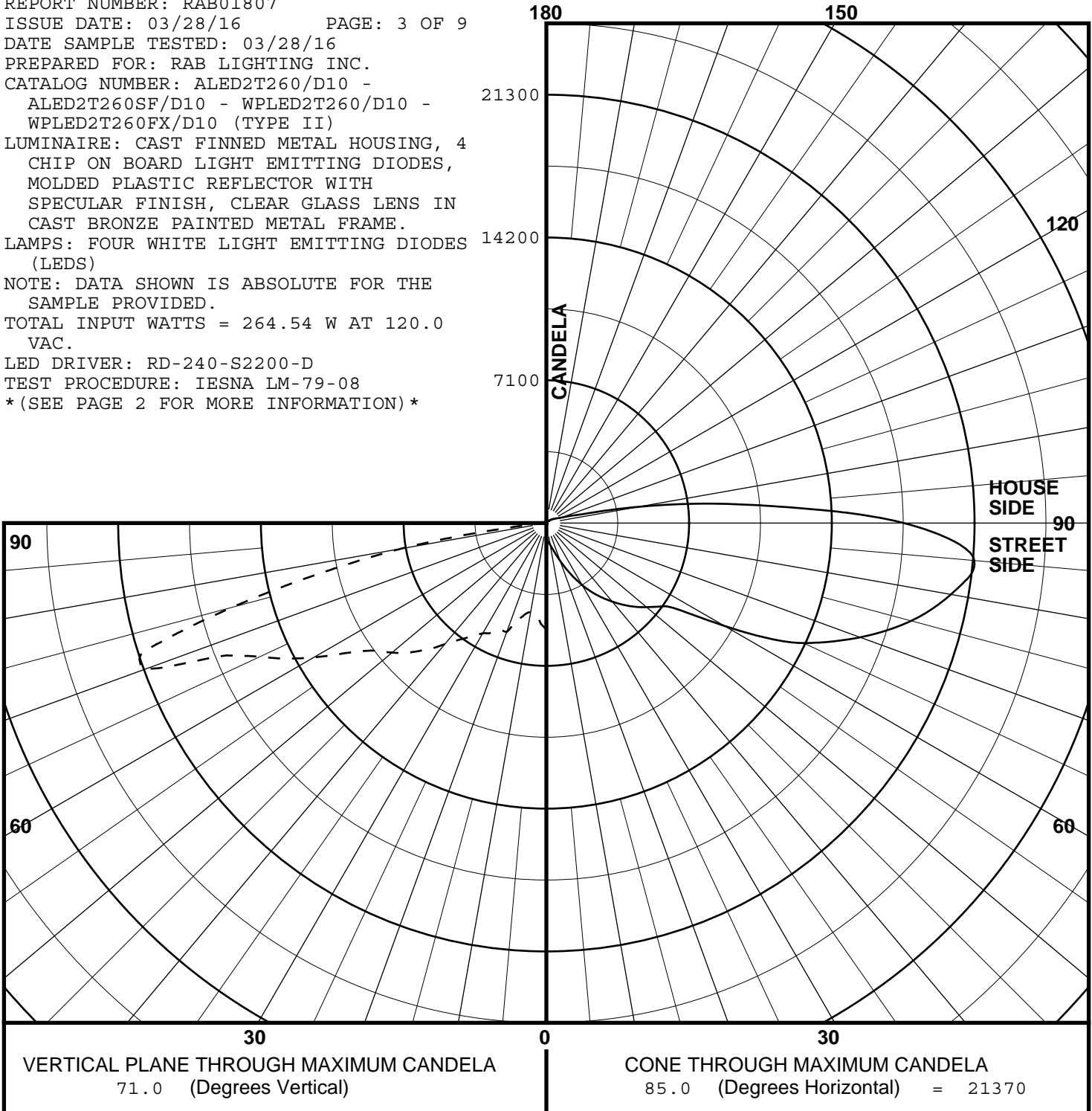
ADDITIONAL INFORMATION

ACCREDITED LABORATORY CODE 201058-0
TEST DISTANCE : 28.25 FEET

NOTE: 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.

MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA

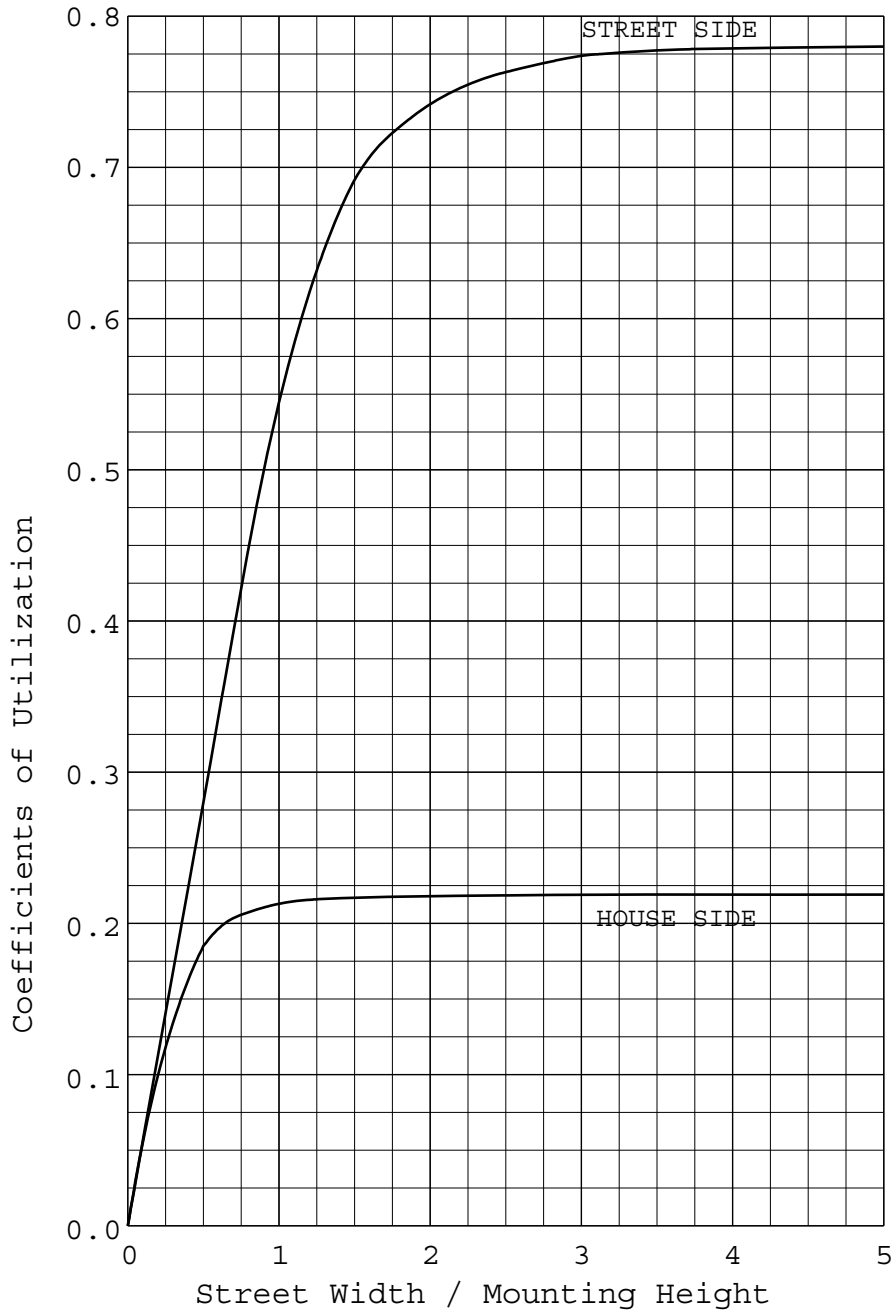
REPORT NUMBER: RAB01807
ISSUE DATE: 03/28/16 PAGE: 3 OF 9
DATE SAMPLE TESTED: 03/28/16
PREPARED FOR: RAB LIGHTING INC.
CATALOG NUMBER: ALED2T260/D10 -
ALED2T260SF/D10 - WPLED2T260/D10 -
WPLED2T260FX/D10 (TYPE II)
LUMINAIRE: CAST FINNED METAL HOUSING, 4
CHIP ON BOARD LIGHT EMITTING DIODES,
MOLDED PLASTIC REFLECTOR WITH
SPECULAR FINISH, CLEAR GLASS LENS IN
CAST BRONZE PAINTED METAL FRAME.
LAMPS: FOUR WHITE LIGHT EMITTING DIODES (LEDS)
NOTE: DATA SHOWN IS ABSOLUTE FOR THE
SAMPLE PROVIDED.
TOTAL INPUT WATTS = 264.54 W AT 120.0
VAC.
LED DRIVER: RD-240-S2200-D
TEST PROCEDURE: IESNA LM-79-08
(SEE PAGE 2 FOR MORE INFORMATION)



REPORT NUMBER: RAB01807
ISSUE DATE: 03/28/16
PREPARED FOR: RAB LIGHTING INC.

PAGE: 4 OF 9
DATE SAMPLE TESTED: 03/28/16

COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	21844.	78.0
DOWNWARD HOUSE SIDE	6148.	22.0
DOWNWARD TOTAL	27992.	100.0
UPWARD STREET SIDE	0.	0.0
UPWARD HOUSE SIDE	0.	0.0
UPWARD TOTAL	0.	0.0
TOTAL FLUX	27992.	100.0
TOTAL INPUT WATTS = 264.5		
EFFICACY = 105.8 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.

REPORT NUMBER: RAB01807
 ISSUE DATE: 03/28/16
 PREPARED FOR: RAB LIGHTING INC.

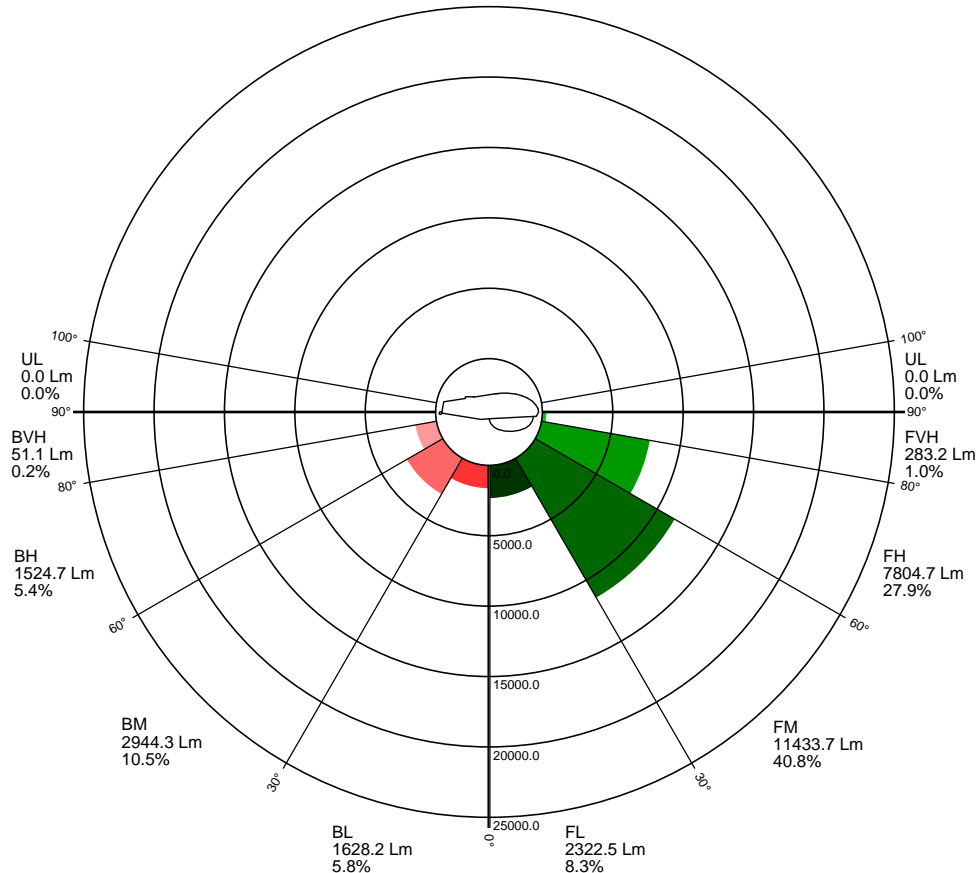
PAGE: 5 OF 9
 DATE SAMPLE TESTED: 03/28/16

BUG Rating:				B3	U0	G4
Zonal Summary		Lumens	% of Fixture	Zone Ratings		
				B	U	G
Forward		21844	78.0			
FL	(0° – 30°)	2322.5	8.3			
FM	(30° – 60°)	11433.7	40.8			
FH	(60° – 80°)	7804.7	27.9			G4
FVH	(80° – 90°)	283.2	1.0			G3
Backward		6148	22.0			
BL	(0° – 30°)	1628.2	5.8	B3		
BM	(30° – 60°)	2944.3	10.5	B3		
BH	(60° – 80°)	1524.7	5.4	B3		G3
BVH	(80° – 90°)	51.1	0.2			G1
Upward		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		27992	100.0			

Zonal Lumen Summary

(Linear scale)

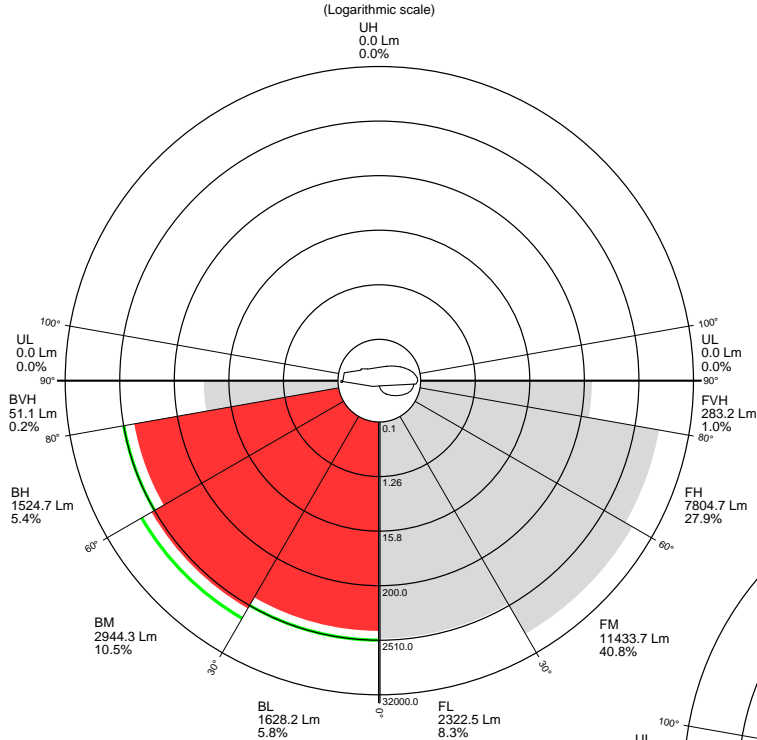
UH
0.0 Lm
0.0%



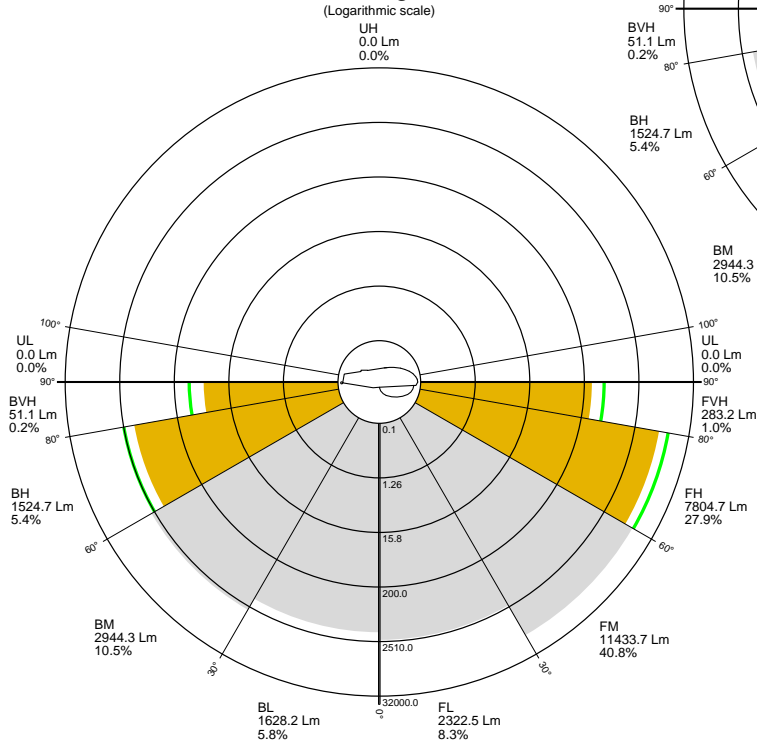
REPORT NUMBER: RAB01807
 ISSUE DATE: 03/28/16
 PREPARED FOR: RAB LIGHTING INC.

PAGE: 6 OF 9
 DATE SAMPLE TESTED: 03/28/16

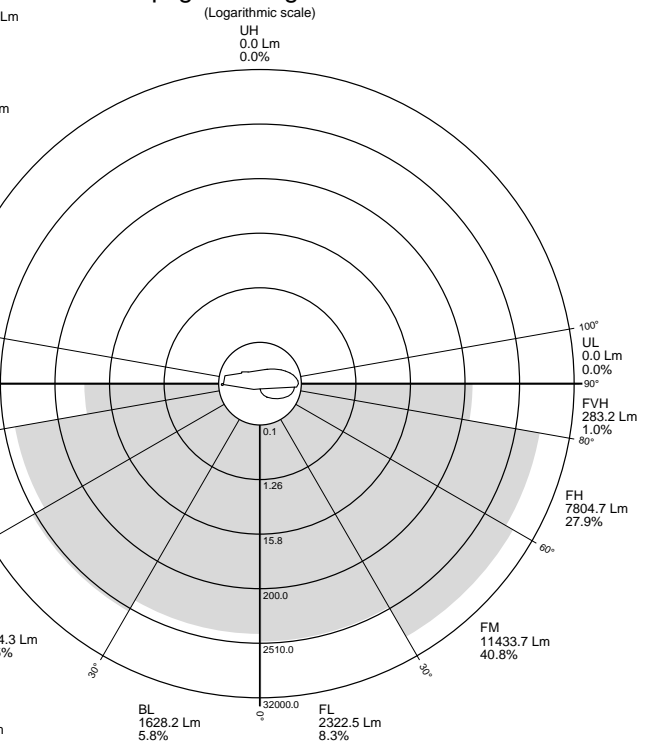
Backlight Rating Details



Glare Rating Details



Uplight Rating Details



CONE OF MAXIMUM CANDELA

REPORT NUMBER: RAB01807
 ISSUE DATE: 03/28/16
 PREPARED FOR: RAB LIGHTING INC.

PAGE: 8 OF 9
 DATE SAMPLE TESTED: 03/28/16

CANDELA TABULATION

HOUSE SIDE

LATERAL ANGLE

	90.0	95.0	105.0	115.0	125.0	135.0	145.0	155.0	165.0	175.0	180.0
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	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
115.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
105.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
95.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
90.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
87.5	63.	34.	28.	19.	18.	18.	22.	22.	20.	17.	17.
85.0	340.	131.	99.	23.	17.	16.	20.	21.	19.	17.	16.
82.5	1473.	586.	151.	37.	20.	15.	18.	19.	17.	15.	15.
V 80.0	4809.	2290.	233.	60.	36.	14.	16.	18.	16.	15.	15.
E 77.5	7172.	4010.	347.	254.	86.	27.	16.	17.	15.	14.	14.
R 75.0	10817.	6034.	520.	454.	166.	61.	24.	20.	18.	15.	15.
T 72.5	16591.	9056.	1109.	475.	252.	97.	34.	29.	25.	18.	18.
I 71.0	<17801.	10323.	1516.	530.	303.	125.	52.	34.	28.	20.	20.
C 70.0	17873.	10942.	1919.	525.	323.	138.	67.	38.	31.	22.	22.
A 67.5	15762.	12280.	2706.	603.	358.	181.	92.	50.	43.	27.	27.
L 65.0	16288.	13108.	3020.	581.	263.	203.	134.	60.	54.	36.	40.
62.5	15746.	12618.	3882.	661.	318.	213.	150.	69.	61.	41.	49.
A 60.0	13507.	11487.	5020.	1255.	514.	207.	141.	86.	70.	53.	53.
N 57.5	12394.	11344.	5741.	2281.	639.	303.	143.	97.	83.	55.	60.
G 55.0	10939.	10386.	6036.	2932.	770.	445.	333.	115.	74.	57.	62.
L 52.5	10309.	9538.	6299.	2856.	1073.	457.	489.	233.	94.	60.	66.
E 50.0	9962.	9395.	6840.	2815.	1318.	493.	493.	510.	272.	95.	105.
47.5	9391.	9289.	7230.	3099.	1476.	808.	348.	560.	465.	275.	181.
45.0	8699.	8676.	7154.	3471.	1581.	1017.	501.	434.	346.	266.	175.
42.5	8172.	8025.	6844.	3814.	1740.	1145.	743.	660.	260.	269.	160.
40.0	7721.	7576.	6620.	4129.	2031.	1292.	857.	541.	288.	276.	179.
37.5	7273.	7196.	6471.	4457.	2411.	1417.	1013.	634.	344.	349.	326.
35.0	6919.	6854.	6359.	4733.	2839.	1662.	1181.	760.	441.	528.	535.
30.0	6328.	6306.	6012.	5164.	3771.	2525.	1654.	1037.	730.	924.	989.
25.0	5952.	5901.	5764.	5333.	4510.	3455.	2399.	1652.	1211.	1305.	1375.
20.0	5775.	5742.	5545.	5160.	4591.	4026.	3232.	2542.	2275.	2291.	2351.
15.0	4885.	4877.	4773.	4663.	4424.	4139.	3821.	3608.	3678.	3825.	3907.
10.0	4510.	4487.	4435.	4339.	4323.	4396.	4404.	4509.	4777.	4917.	4966.
5.0	4715.	4691.	4695.	4662.	4701.	4753.	4826.	4936.	5086.	5149.	5169.
0.0	5272.	5272.	5272.	5272.	5272.	5272.	5272.	5272.	5272.	5272.	5272.

CONE OF MAXIMUM CANDELA

REPORT NUMBER: RAB01807
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 PREPARED FOR: RAB LIGHTING INC.

PAGE: 9 OF 9
 DATE SAMPLE TESTED: 03/28/16

5-DEGREE ZONAL LUMEN SUMMARY

0- 5	122
5- 10	343
10- 15	544
15- 20	747
20- 25	973
25- 30	1222
30- 35	1527
35- 40	1902
40- 45	2300
45- 50	2667
50- 55	2929
55- 60	3052
60- 65	2979
65- 70	2813
70- 75	2320
75- 80	1217
80- 85	312
85- 90	22
90- 95	0
95-100	0
100-105	0
105-110	0
110-115	0
115-120	0
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	465
0- 20	1756
0- 30	3951
0- 40	7380
0- 50	12347
0- 60	18329
0- 70	24121
0- 80	27658
0- 90	27992
0-100	27992
0-110	27992
0-120	27992
0-130	27992
0-140	27992
0-150	27992
0-160	27992
0-170	27992
0-180	27992

REPORT NUMBER: RAB01811
DATE: 3/29/2016
PREPARED FOR: RAB LIGHTING INC.
CATALOG NUMBER: ALED2T260/D10 - ALED2T260SF/D10 - WPLED2T260/D10 - WPLED2T260FX/D10 (TYPE II)
ADDRESS: 170 LUDLOW AVE, NORTHVALE, NJ 07647

LUMINAIRE: CAST FINNED METAL HOUSING, 4 CHIP ON BOARD LIGHT EMITTING DIODES, MOLDED PLASTIC REFLECTOR WITH SPECULAR FINISH, CLEAR GLASS LENS IN CAST BRONZE PAINTED METAL FRAME.

LAMP: FOUR WHITE LIGHT EMITTING DIODES (LEDs)

DRIVER: RD-240-S2200-D

OBJECT OF TEST: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT THE RATED INPUT VOLTAGES (120.0 AND 277.0 VAC, 60Hz) TO THE TEST SAMPLE.

INSTRUMENTS:	GWINSTEK PROGRAMMABLE AC POWER SOURCE APS-7100	Calibration Due: N/A
	CHROMA PROGRAMMABLE DIGITAL POWER METER MODEL 66202	2/26/17
	OCEAN OPTICS QE65PRO Spectroradiometer	3/21/17
	RAB 2.0 meter Diameter Integrating Sphere, 4PI Geometry	3/21/17

OBJECT OF TEST: Measure the Absolute Flux in lumens*, Total Radiant Flux*, Spectral Power Distribution (SPD), Correlated Color Temperature (CCT), Color Rendering Indices (CRIa,1-14), Chromaticity Coordinates (x,y; u'v'), ANSI C78.377 Duv, and electrical data including ANSI C82.77-2002 Power Factor (PF), and Total Harmonic Distortion (THD) to the test sample. Measure electrical data including Total Harmonic Distortion (THD) at maximum nominal rated input voltage. Report Off-State Power.

PROCEDURE: The test sample was mounted inside the integrating sphere, energized, 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 60 HZ input in a 25 +/-1 degree Celsius free air ambient and in accordance with IESNA LM-79-08. Electrical data was also recorded at maximum nominal rated input voltage (277.0 VAC). All data are traceable to the National Institute of Standards and Technology. Off-State Power was reported with no voltage applied to the sample.

*NOTE: Proper calibration of integrating spheres for measuring total flux output of non-directional samples will produce reliable, repeatable results within the calibration tolerances of the equipment used. However, measurement of test samples with significant self absorption and/or directional output, even when these effects are compensated for, are likely to have a greater variation in results compared to the flux output calculated from a goniophotometric exploration since these artifacts do not affect the goniophotometric results.

RESULTS: (continued subsequent pages)

Checked X.CAO

Approved D.WANG-MUNSON
Lighting Engineer

REPORT NUMBER: RAB01811
 DATE: 3/29/2016
 PREPARED FOR: RAB LIGHTING INC.
 CATALOG NUMBER: ALED2T260/D10 - ALED2T260SF/D10 - WPLED2T260/D10 - WPLED2T260FX/D10 (TYPE II)

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RESULTS:

PHOTOMETRIC	
Total Integrated Flux (lumens)	27992 *
SPECTRORADIOMETRIC	
Observer	CIE 1931 2 degree
Chromaticity Ordinate x	0.3423
Chromaticity Ordinate y	0.3603
Observer	CIE 1976 2 degree
Chromaticity Ordinate u'	0.2063
Chromaticity Ordinate v'	0.4884
Correlated Color Temp CCT (K)	5129
ANSI C78.377-2008 Duv	0.005
Total Radiant Flux (milliWatts)	82384 *
ELECTRICAL	
Input Voltage (Volts AC)	120.0
Input Current (Amps AC)	2.21
Input Power (Watts)	264.5
Input Power Factor (%)	99.9
Input Current THD (%)	3.3
Input Voltage THD (%)	0.2
EFFICACY (Lumens/Watt)	
	105.8
ELECTRICAL AT MAX NONIMAL INPUT	
Input Voltage (Volts AC)	277.0
Input Current (Amps AC)	0.965
Input Power (Watts)	258.6
Input Power Factor (%)	96.7
Input Current THD (%)	5.1
Input Voltage THD (%)	0.2
Off-State Power (Watts)	0.0

COLOR RENDERING INDICES	CRI
Ra (Average 1-8)	70
R1 Light greyish red	67
R2 Dark greyish yellow	74
R3 Strong yellowish green	80
R4 Moderate yellowish green	72
R5 Light bluish green	69
R6 Light blue	66
R7 Light violet	80
R8 Light reddish purple	55
R9 Strong red	-38
R10 Strong yellow	40
R11 Strong green	69
R12 Strong blue	43
R13 Light yellowish pink (skin)	68
R14 Moderate olive green (leaf)	89

*NOTE:

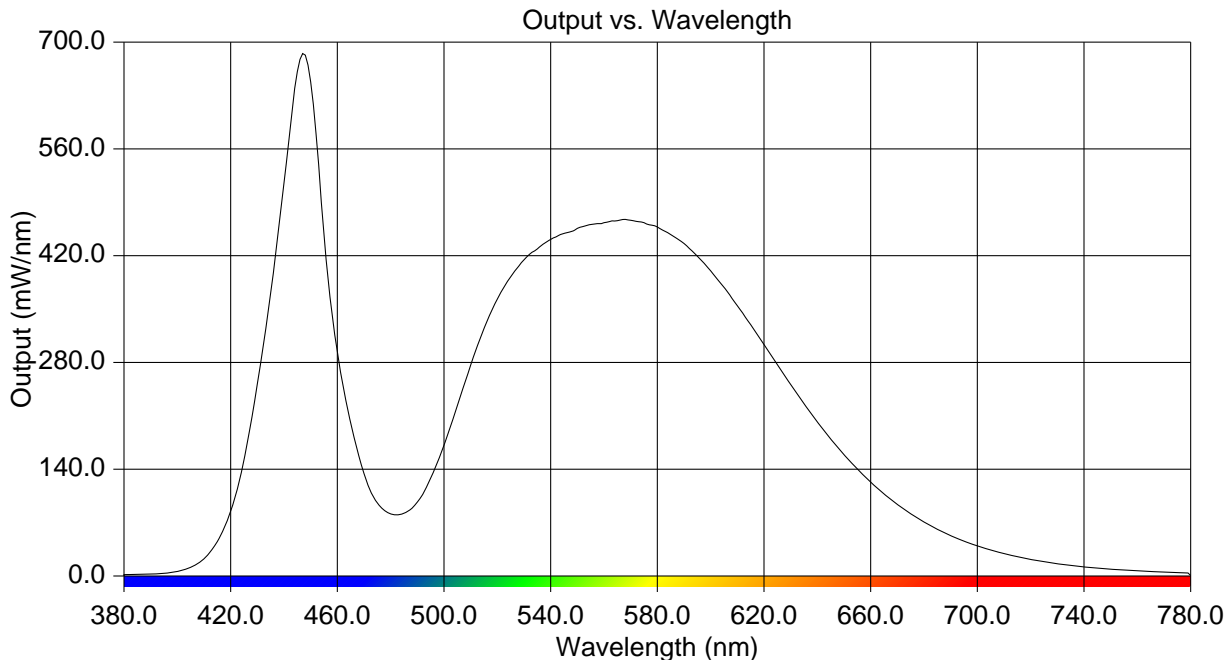
Proper calibration of integrating spheres for measuring total flux output of non-directional samples will produce reliable, repeatable results within the calibration tolerances of the equipment used. However, measurement of test samples with significant self absorption and/or directional output, even when these effects are compensated for, are likely to have a greater variation in results compared to the flux output calculated from a goniophotometric exploration since these artifacts do not affect the goniophotometric results.

REPORT NUMBER: RAB01811
 DATE: 3/29/2016
 PREPARED FOR: RAB LIGHTING INC.
 CATALOG NUMBER: ALED2T260/D10 - ALED2T260SF/D10 - WPLED2T260/D10 - WPLED2T260FX/D10
 (TYPE II)

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RESULTS:

Wavelength	mW per nm	Wavelength	mW per nm	Wavelength	mW per nm
380	1.715	515	324.877	650	159.392
385	1.968	520	364.099	655	140.594
390	2.545	525	393.035	660	123.170
395	3.567	530	414.967	665	107.744
400	5.977	535	429.276	670	93.822
405	11.236	540	441.770	675	81.807
410	22.728	545	449.454	680	70.991
415	45.170	550	456.262	685	61.474
420	84.429	555	461.358	690	53.066
425	152.609	560	463.735	695	45.755
430	252.167	565	466.327	700	39.449
435	370.863	570	466.898	705	34.128
440	516.049	575	463.748	710	29.346
445	662.000	580	458.089	715	25.222
450	648.641	585	448.363	720	21.756
455	449.990	590	436.435	725	18.786
460	291.984	595	419.868	730	16.106
465	202.456	600	400.543	735	13.907
470	134.463	605	379.034	740	11.939
475	95.908	610	354.742	745	10.324
480	81.306	615	329.958	750	8.986
485	82.336	620	303.934	755	7.743
490	96.996	625	277.901	760	6.797
495	127.471	630	251.085	765	5.865
500	171.534	635	225.951	770	5.077
505	223.368	640	202.492	775	4.424
510	276.783	645	179.985	780	0.667



REPORT NUMBER: RAB01811
 DATE: 3/29/2016
 PREPARED FOR: RAB LIGHTING INC.
 CATALOG NUMBER: ALED2T260/D10 - ALED2T260SF/D10 - WPLED2T260/D10 - WPLED2T260FX/D10 (TYPE II)

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CIE Chromaticity Diagram

