

# itl boulder

THE LIGHT CENTER OF THE INDUSTRY SINCE 1955

INDEPENDENT TESTING LABORATORIES, INC.  
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REPORT NUMBER: ITL64985

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DATE: 05/25/10

PREPARED FOR: BETALED, A DIVISION OF RUUD LIGHTING

CATALOG NUMBER: PWY-EDG-2M-\*\*-18-C-UL or BXBP\*218C-U (350mA)

LUMINAIRE: FABRICATED GRAY PAINTED CYLINDRICAL METAL LOWER HOUSING, FABRICATED GRAY PAINTED METAL TOP TRIM/HEAT SINK, THREE CIRCUIT BOARDS EACH WITH SIX LEDS MOUNTED AROUND PERIMETER OF A CAST GRAY PAINTED METAL PLATE, CAST BLACK PAINTED METAL CIRCUIT BOARD RETAINING RING, ONE CLEAR PLASTIC NON-INTEGRAL LENS BELOW EACH LED. CAST GRAY PAINTED METAL LOWER HOUSING CAP WITH THREE VERTICAL SUPPORTS.

LAMPS: EIGHTEEN WHITE LIGHT EMITTING DIODES (LEDS), VERTICAL BASE-UP POSITION.

LED DRIVER: THOMAS RESEARCH PRODUCTS TRC-025S070PS

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (240VAC, 60Hz) TO THE LED DRIVER. CLIENT STATES LEDS HAVE BEEN SEASONED FOR A MINIMUM OF 100 HOURS.

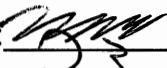
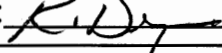
INSTRUMENTATION: Kikusui PCR2000L AC Power Source  
Yokogawa WT210 Digital Power Meter  
Ocean Optics QE65000 Spectroradiometer  
ITL 2.0 Meter Diameter Integrating Sphere, 4 $\pi$  Geometry

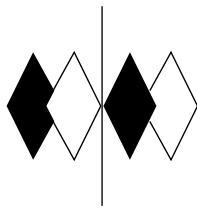
OBJECT OF TEST: Report the Absolute Flux in Lumens\*, measure the Spectral Power Distribution, Correlated Color Temperature (CCT), Color Rendering Index (CRI), Chromaticity Coordinates (x,y), ANSI C78.377 Duv, and input electrical parameters including Total Harmonic Distortion (THD) to the luminaire.

PROCEDURE: The luminaire was provided by customer and the LEDs had a minimum of 100 burn hours. The luminaire was mounted inside the integrating sphere with the luminaire horizontal (LEDS facing down). The luminaire was allowed to stabilize at 240 VAC input. After stabilization occurred, spectral power distribution, CCT, CRI, x/y chromaticity coordinates, ANSI C78.377 Duv, and input electrical data were measured with the luminaire operating in the integrating sphere. In order to measure the mean performance, multiple data sets were recorded and averaged. Readings were taken with the luminaire operating at 240 VAC 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.

\*NOTE: The total lumen output shown on this report was obtained from photometric test ITL64981.

RESULTS: (continued subsequent pages)

Checked: 
Approved: 



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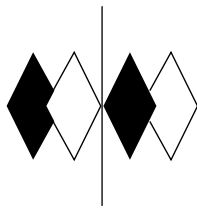
CATALOG NUMBER: PWY-EDG-2M-\*\*-02-C-UL or BXBP\*218C-U (350mA)

## RESULTS:

PHOTOMETRIC	
Total Integrated Flux (lumens)	1382*
SPECTRORADIOMETRIC	
Observer	CIE 1931 2 degree
Chromaticity Ordinate x	0.3169
Chromaticity Ordinate y	0.3314
Correlated Color Temp CCT (K)	6266
Color Rendering Index (CRI)	72
ANSI C78.377-2008 Duv	0.002
ELECTRICAL	
Input Voltage (Volts AC)	240.0
Input Current (mA AC)	110
Input Power (Watts)	23.8
Total Harmonic Distortion – Current (%)	13.2
Total Harmonic Distortion – Voltage (%)	0.0
EFFICACY (Lumens/Watt)	58.1

### \*NOTE:

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RESULTS:

Wavelength	mW per nm	Wavelength	mW per nm	Wavelength	mW per nm
380	0.241	515	16.732	650	7.818
385	0.289	520	18.758	655	7.040
390	0.372	525	20.477	660	6.323
395	0.492	530	21.758	665	5.649
400	0.710	535	22.501	670	5.029
405	1.214	540	22.916	675	4.471
410	1.916	545	23.165	680	3.965
415	3.504	550	23.290	685	3.519
420	6.615	555	23.255	690	3.128
425	11.543	560	23.063	695	2.772
430	18.554	565	22.819	700	2.442
435	27.402	570	22.421	705	2.156
440	37.253	575	21.931	710	1.915
445	41.777	580	21.371	715	1.683
450	36.002	585	20.674	720	1.479
455	25.286	590	19.810	725	1.299
460	16.879	595	18.871	730	1.142
465	11.933	600	17.923	735	1.007
470	8.873	605	16.892	740	0.889
475	6.955	610	15.823	745	0.782
480	5.930	615	14.789	750	0.689
485	5.652	620	13.720	755	0.607
490	6.092	625	12.609	760	0.535
495	7.348	630	11.498	765	0.470
500	9.355	635	10.547	770	0.415
505	11.828	640	9.612	775	0.364
510	14.370	645	8.673	780	0.321

