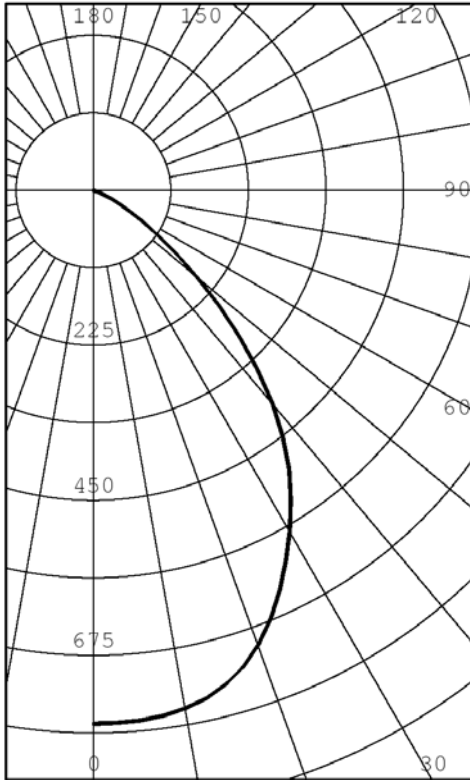




CERTIFIED TEST REPORT No. 26873

ENLUX LIGHTING - 8" LED DOWNLIGHT LUMINAIRE, CAT# DL2-TC/4500K
WITH SPECULAR REFLECTOR AND FROSTED FLAT PLASTIC LENS
TWO LED ARRAYS. LUMINAIRE OUTPUT = 1253 LMS
LUMINAIRE OPERATING AT 120 VAC AND 26.7 WATTS



INTENSITY (CANDLEPOWER) SUMMARY

ANGLE	MEAN CP	LUMENS
0	774	
5	773	75
10	763	
15	742	208
20	700	
25	639	293
30	570	
35	495	306
40	404	
45	298	229
50	196	
55	116	107
60	61	
65	30	32
70	13	
75	3	4
80	0	
85	0	0
90	0	

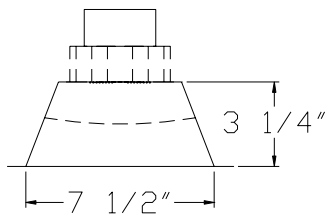
ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	575	45.92
0-40	881	70.34
0-60	1217	97.12
0-90	1253	100.00
40-90	372	29.66
60-90	36	2.88
90-180	0	0.00
0-180	1253	100.00

EFFICACY (LUMENS PER WATT): 46.9

*** THIS IS AN ABSOLUTE TEST ***

LUMINOUS DIAMETER: 7.500 INS



LUMINANCE SUMMARY CD./SQ.M.

ANGLE	MEAN CD/SQ M
45	14859
55	7103
65	2459
75	342
85	0

S/MH: 1.1
SC: 1.1

CERTIFIED BY:

Joseph E. Walker III

DATE:
MAR 24, 2010

PREPARED FOR:

ENLUX LIGHTING
TEMPE, AZ

TESTED IN ACCORDANCE WITH IES PROCEDURES.

LIGHTING SCIENCES, INC.
7826 E. EVANS RD.
SCOTTSDALE, AZ, USA 85260

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LUMINAIRE OPERATING AT 120 VAC AND 26.7 WATTS

INTENSITY (CANDLEPOWER) DATA
IN 2.5 DEGREE STEPS

ANGLE	INTENSITY (CANDLEPOWER)	LUMENS
0.0	774	
2.5	774	
5.0	773	75
7.5	770	
10.0	763	
12.5	756	
15.0	742	208
17.5	725	
20.0	700	
22.5	673	
25.0	639	293
27.5	604	
30.0	570	
32.5	533	
35.0	495	306
37.5	451	
40.0	404	
42.5	351	
45.0	298	229
47.5	246	
50.0	196	
52.5	154	
55.0	116	107
57.5	86	
60.0	61	
62.5	43	
65.0	30	32
67.5	20	
70.0	13	
72.5	7	
75.0	3	4
77.5	1	
80.0	0	
82.5	0	
85.0	0	0
87.5	0	
90.0	0	

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LUMINAIRE OPERATING AT 120 VAC AND 26.7 WATTS

AVERAGE LUMINANCE DATA

CD./SQ.M (FOOTLAMBERTS)

ANGLE	LUMINANCE
0	27167 (7929)
30	23095 (6740)
40	18513 (5403)
45	14859 (4337)
50	10719 (3128)
55	7103 (2073)
60	4290 (1252)
65	2459 (717)
70	1322 (386)
75	342 (99)
80	19 (5)
85	0 (0)

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COEFFICIENTS OF UTILIZATION

ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE = .20

CC WALL	90				80				70				50				30				10				0	
	70	50	30	10	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR	0	1.221	.221	.221	.22	1.191	.191	.191	.19	1.161	.161	.161	.16	1.111	.111	.111	.11	1.061	.061	.061	.06	1.021	.021	.021	.02	1.00
	1	1.151	.121	.091	.06	1.131	.101	.071	.05	1.101	.081	.051	.03	1.041	.021	.00		1.000	.980	.97		0.960	.950	.94		0.92
	2	1.091	.030	.990	.94	1.071	.020	.970	.93	1.051	.000	.960	.92	0.960	.930	.90		0.940	.910	.88		0.910	.890	.87		0.85
	3	1.020	.950	.890	.84	1.000	.930	.880	.84	0.980	.920	.870	.83	0.890	.850	.82		0.870	.840	.80		0.850	.820	.79		0.78
	4	0.960	.880	.810	.76	0.950	.860	.800	.76	0.930	.850	.800	.75	0.830	.780	.74		0.810	.770	.74		0.790	.760	.73		0.71
	5	0.910	.810	.740	.69	0.890	.800	.730	.68	0.870	.790	.720	.68	0.770	.710	.67		0.750	.700	.67		0.730	.700	.66		0.65
	6	0.850	.740	.670	.63	0.830	.730	.670	.62	0.820	.730	.660	.62	0.710	.660	.61		0.700	.650	.61		0.680	.640	.60		0.59
	7	0.790	.680	.610	.57	0.780	.670	.610	.56	0.770	.670	.600	.56	0.650	.590	.55		0.640	.590	.55		0.630	.580	.55		0.53
	8	0.740	.630	.560	.51	0.730	.620	.550	.51	0.720	.610	.550	.50	0.600	.540	.50		0.590	.540	.50		0.580	.530	.50		0.48
	9	0.690	.580	.510	.46	0.680	.570	.500	.46	0.670	.570	.500	.46	0.550	.500	.45		0.550	.490	.45		0.540	.490	.45		0.43
	10	0.650	.530	.460	.41	0.640	.530	.460	.41	0.630	.520	.460	.41	0.510	.450	.41		0.500	.450	.41		0.500	.450	.41		0.39

THE ABOVE COEFFICIENTS HAVE BEEN CALCULATED BASED ON LUMINAIRE LUMENS
 BECAUSE IN AN ABSOLUTE TEST THE BARE LAMP LUMENS ARE UNKNOWN.
 LIGHTING DESIGN CALCULATIONS MADE USING THESE COEFFICIENTS SHOULD
 THEREFORE USE THE LUMINAIRE LUMENS IN THE CALCULATION FORMULA

LUMINAIRE INPUT WATTS 26.7

LABORATORY RESULTS MAY NOT BE REPRESENTATIVE OF FIELD PERFORMANCE.
 BALLAST AND FIELD FACTORS HAVE NOT BEEN APPLIED.

TEST DISTANCE EXCEEDS FIVE TIMES THE GREATEST
 LUMINOUS OPENING OF LUMINAIRE.

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TWO LED ARRAYS. LUMINAIRE OUTPUT = 1253 LMS
LUMINAIRE OPERATING AT 120 VAC AND 26.7 WATTS

ELECTRICAL MEASUREMENTS

INPUT VOLTAGE:	120.0	VOLTS AC
INPUT CURRENT:	0.234	AMPS
INPUT POWER:	26.7	WATTS
POWER FACTOR:	95.1	PERCENT
TOTAL HARMONIC DISTORTION:	21.84	PERCENT
OFF STATE POWER:	0.00	WATTS

LIGHT OUTPUT

LUMENS:	1253	lm
EFFICACY:	46.9	lm/W

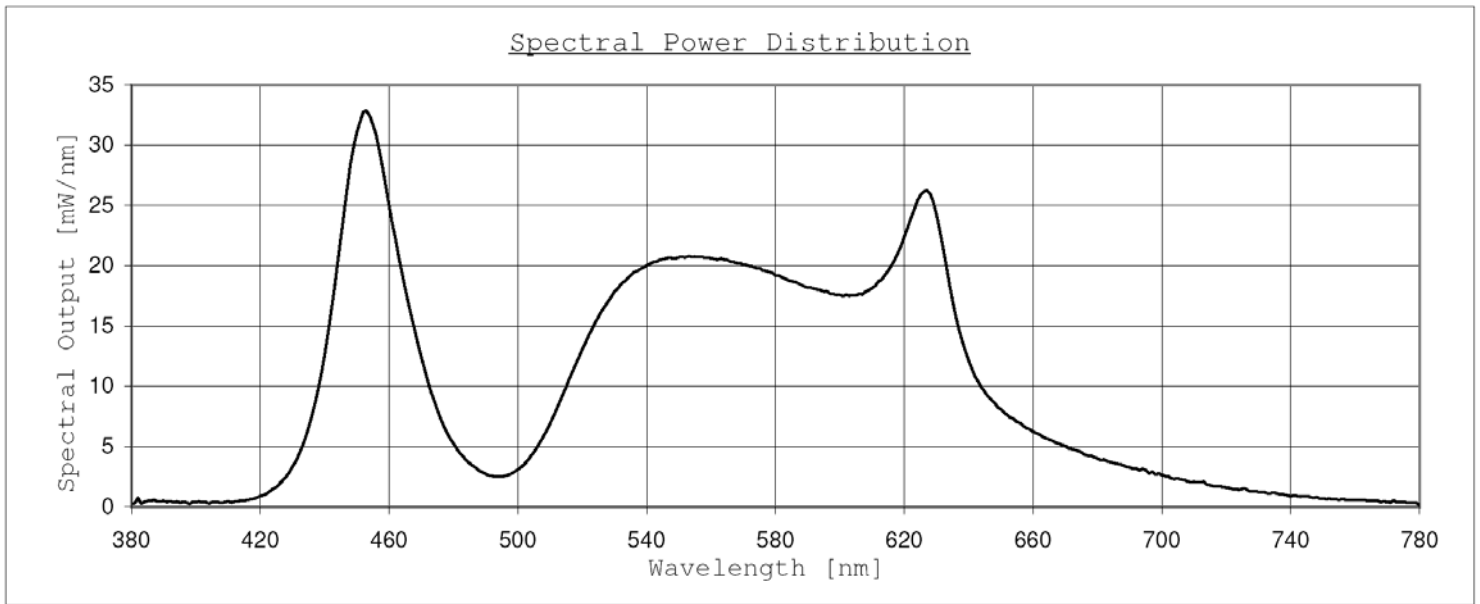
SPECTRAL MEASUREMENTS

X:	0.3625	
y:	0.3498	
u/u':	0.2240	
v:	0.3243	
v':	0.4864	
Duv:	0.0074	
CRI (R _a):	81.6	
CRI (R ₉):	43.4	
CCT:	4351	K
RADIANT FLUX:	3866	mW

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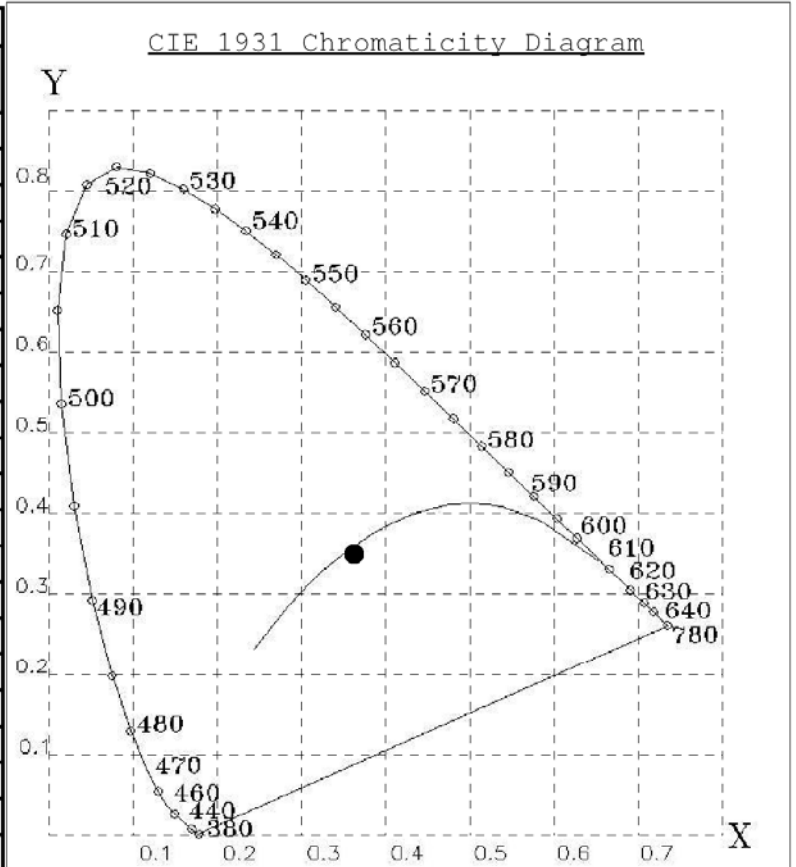
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Tabulated Spectral Power Distribution

Wavelength [nm]	[mW/nm]	Wavelength [nm]	[mW/nm]
380	0.25487	590	18.20854
390	0.49747	600	17.58823
400	0.41620	610	18.16218
410	0.46736	620	22.41402
420	0.91128	630	24.26136
430	3.36880	640	12.13814
440	12.64094	650	8.10746
450	31.08504	660	6.25133
460	25.00557	670	5.07785
470	12.43604	680	4.03121
480	5.26464	690	3.27794
490	2.72744	700	2.66216
500	3.10821	710	2.09301
510	6.92386	720	1.60646
520	13.06434	730	1.24915
530	17.86002	740	0.87691
540	20.04336	750	0.72290
550	20.71723	760	0.57475
560	20.63223	770	0.38796
570	20.08093	780	0.16107
580	19.20322		

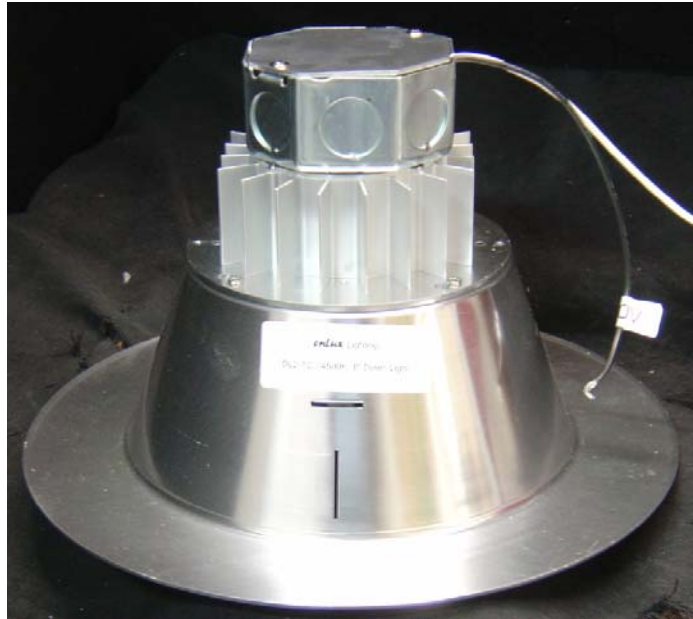


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SIDE VIEW



LUMINOUS OPENING



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This photometric test was conducted using a Lighting Sciences series 6000 Moving Mirror Goniophotometer.

The photometric reference standard used was a set of three incandescent luminous intensity standard lamps calibrated traceable to the U.S. National Institute of Standards and Technology. Calibration certificates are on file at the laboratories of Lighting Sciences Inc.

The condition of the item tested was new. Operating time of the product prior to testing exceeded 8 hours. Stabilization time before testing exceeded 30 minutes.

Colorimetric testing was performed using a Lighting Sciences model 4000 integrating sphere of either 1 or 2 meters diameter, having an internal reflectance exceeding 0.80. 4π geometry was used. Correction factors were applied for spectral mismatch and self-absorption. The spectroradiometer employed was a LSC model 500E having a bandwidth .84.

Ambient temperature during testing was $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$, measured using an Omega model DP460. All testing was conducted in accordance with IES LM-79-08.

All photometric quantities provided in this report are presented on an absolute basis. Testing was conducted using the rated input voltage to the driver.