



Reflector Lamp Test Report

Relevant Standards
IES LM-79-2008, IES LM-20-1994
ANSI C82.77

Prepared For
Technical Consumer Products, Inc
Paul Philips
325 Campus Drive
Aurora, OH 44202

Catalog Number
LED14E26P3030KNFL

LTL Test Number
23686

Test Date
2011-06-06

Prepared By

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Approved By

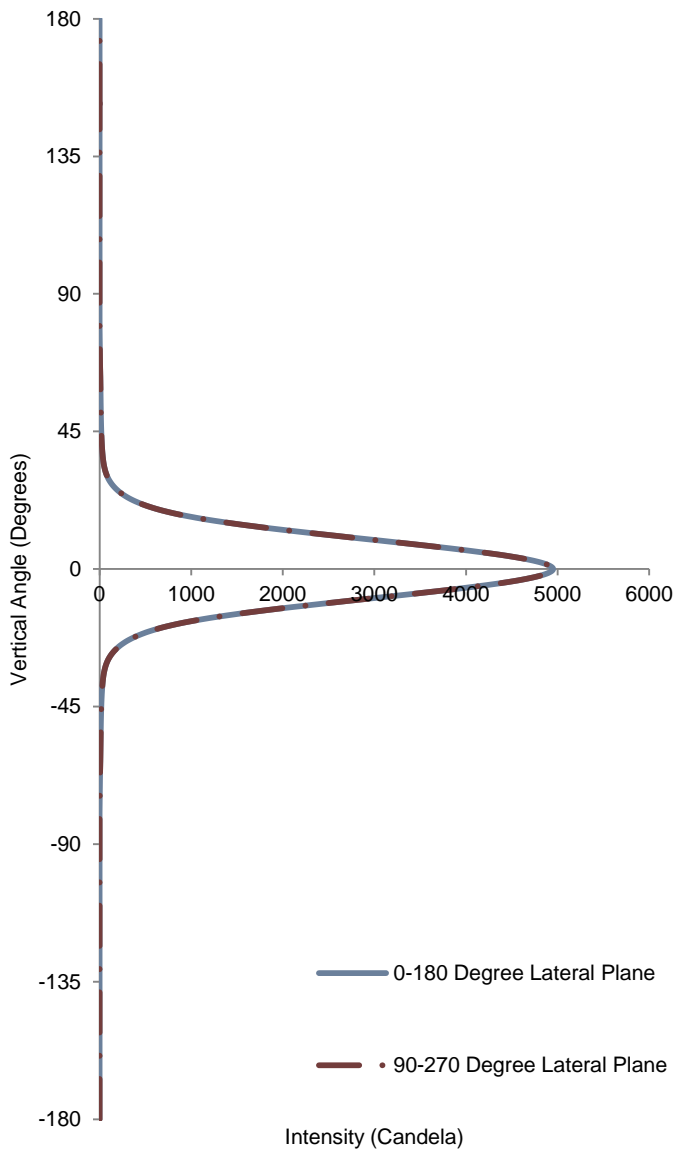
Zachary Mooney, Project Coordinator

The results contained in this report pertain only to the tested sample.
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Lamp Description: Cast aluminum heatsink housing, clear patterned plastic optic
Catalog Number: LED14E26P3030KNFL
Lamp: One PAR 30 LED replacement lamp with one white LED
Mounting: VBU

Intensity vs Vertical Angle



Lamp



Test Conditions

Test Temperature: 24.6 °C
Voltage: 120.0 VAC
Current: 0.1302 A
Power: 13.80 W
Power Factor: 0.883
Frequency: 60 Hz

Total Lumen Output: 937.0 Lumens
Luminaire Efficacy: 67.9 Lumens/Watt
CIE Type: Direct
Spacing Criterion: 0.38 All Directions

Center Beam Intensity: 4952 Candela
Central Cone Intensity: 4710 Candela
Beam Flux: 428.6 Lumens
Beam Angle 0-180: 22.4 Degrees
Beam Angle 90-270: 22.4 Degrees
Field Angle 0-180: 41.7 Degrees
Field Angle 90-270: 41.7 Degrees

Data was acquired using the calibrated photodetector method of absolute photometry. A spectral mismatch correction factor was employed based on the spectral responsivity of the photodetector and the spectral power distribution of the test subject.



Candela Tabulation Lateral Angle (Degrees)

Vertical Angle (Degrees)

Table with 17 columns (0 to 337.5) and 27 rows (0 to 180) of candela values.



Utilization of Lumens - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%												
Ceiling Cavity Reflectance	90				80				70			
Wall Reflectance	70	50	30	10	70	50	30	10	70	50	30	10
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **											
0	1143	1143	1143	1143	1115	1115	1115	1115	1090	1090	1090	1090
1	1101	1078	1058	1039	1077	1057	1039	1023	1055	1037	1021	1007
2	1062	1023	992	965	1041	1007	979	955	1022	991	966	944
3	1025	977	939	910	1008	964	930	903	991	951	920	895
4	992	936	896	866	977	926	889	861	962	916	882	856
5	962	901	860	829	948	893	854	826	935	885	849	822
6	933	870	828	799	921	863	824	796	910	857	820	794
7	907	842	801	772	896	836	798	770	886	831	794	768
8	882	817	776	749	873	812	774	747	864	807	771	746
9	859	794	754	728	851	790	752	726	843	786	750	725
10	838	772	734	708	830	769	732	708	823	766	730	707

Ceiling Cavity Reflectance	50				30			10			0
Wall Reflectance	70	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **										
0	1041	1041	1041	1041	997	997	997	956	956	956	937
1	1014	1000	987	976	966	956	947	934	927	920	904
2	986	962	942	924	935	919	905	910	898	886	872
3	960	928	903	882	907	886	868	887	870	855	843
4	935	898	869	846	881	856	837	865	844	828	816
5	912	870	839	815	856	829	809	843	820	802	792
6	889	844	812	789	833	805	784	822	798	779	769
7	868	821	788	765	811	782	761	802	777	758	748
8	848	799	766	743	791	762	740	783	757	738	729
9	828	778	746	723	772	742	721	765	739	719	710
10	810	759	727	705	753	724	703	748	721	702	694

Average Luminance Table (cd/m²)

		Horizontal Angle (Degrees)		
		0	45	90
Vertical Angle (Degree)	0	2154000	2154000	2154000
	45	11500	11500	11500
	55	8955	8955	8955
	65	6856	6856	6856
	75	3049	3049	3049
	85	0	0	0

This test was conducted using photometry techniques according to standard IES procedures. The user must therefore use caution in the following situations: 1) This test was performed using a specific ballast/lamp combination. Extrapolation of this data for other ballast/lamp combinations may produce erroneous results. 2) This test was conducted in a controlled laboratory environment where the ambient temperature was held at 25°C ±1°C. Field performance may differ particularly in regards to change in luminous output as a result of difference in ambient temperature and method of mounting the luminaire.



Zonal Lumen Tabulation (5 degree zones)

Zone (Degrees)	Lumens	Zone (Degrees)	Lumens	Zone (Degrees)	Lumens	Zone (Degrees)	Lumens
0-5	110.3	45-50	6.6	90-95	0	135-140	0
5-10	251.8	50-55	5.6	95-100	0	140-145	0
10-15	244.5	55-60	4.9	100-105	0	145-150	0
15-20	153.7	60-65	4.0	105-110	0	150-155	0
20-25	77.8	65-70	2.6	110-115	0	155-160	0
25-30	36.4	70-75	1.5	115-120	0	160-165	0
30-35	17.7	75-80	0.5	120-125	0	165-170	0
35-40	10.9	80-85	0.0	125-130	0	170-175	0
40-45	8.1	85-90	0	130-135	0	175-180	0

Polar Plot (Candela)

