



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
LED17E26P3830KNFL

LTL Test Number
23687

Test Date
2011-06-06

Prepared By

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Approved By

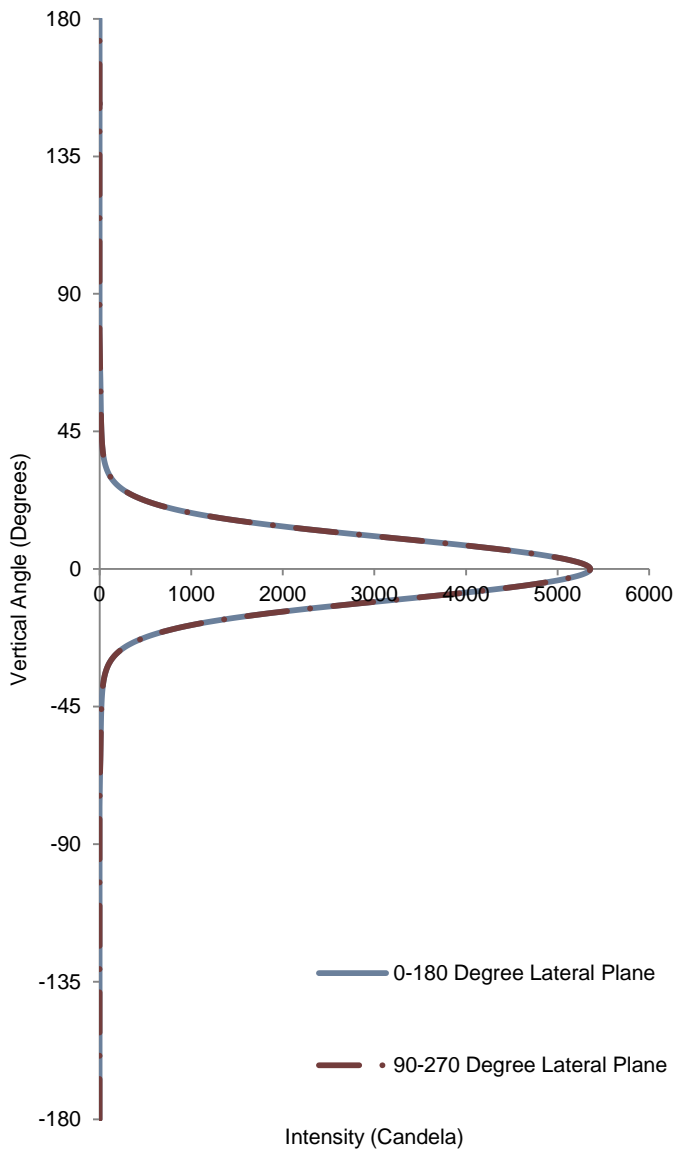
Zachary Mooney, Project Coordinator

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: LED17E26P3830KNFL
Lamp: One PAR 38 LED replacement lamp with one white LED
Mounting: VBU

Intensity vs Vertical Angle



Lamp



Test Conditions

Test Temperature: 25.3 °C
Voltage: 120.0 VAC
Current: 0.1618 A
Power: 17.35 W
Power Factor: 0.893
Frequency: 60 Hz

Total Lumen Output: 1105 Lumens
Luminaire Efficacy: 63.7 Lumens/Watt
CIE Type: Direct
Spacing Criterion: 0.40 All Directions

Center Beam Intensity: 5357 Candela
Central Cone Intensity: 5132 Candela
Beam Flux: 510.2 Lumens
Beam Angle 0-180: 23.4 Degrees
Beam Angle 90-270: 23.4 Degrees
Field Angle 0-180: 43.9 Degrees
Field Angle 90-270: 43.9 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, 22.5, 45, 67.5, 90, 112.5, 135, 157.5, 180, 202.5, 225, 247.5, 270, 292.5, 315, 337.5) and 27 rows (0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 105, 110, 115, 120, 125, 130, 135, 140, 145, 150, 155, 160, 165, 170, 175, 180). Values range from 5357 down to 0.



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	1348	1348	1348	1348	1316	1316	1316	1316	1285	1285	1285	1285
1	1298	1271	1247	1225	1270	1246	1225	1206	1244	1223	1204	1187
2	1251	1206	1168	1137	1227	1187	1153	1124	1205	1168	1138	1112
3	1208	1150	1105	1070	1187	1135	1094	1062	1167	1120	1083	1053
4	1168	1101	1053	1017	1150	1089	1045	1011	1133	1078	1037	1005
5	1131	1059	1009	973	1115	1049	1003	969	1100	1040	997	965
6	1097	1021	971	936	1083	1013	966	933	1069	1005	962	930
7	1065	987	938	904	1052	981	934	901	1041	974	930	899
8	1035	956	908	875	1024	951	905	873	1013	945	902	871
9	1007	928	881	849	997	923	878	848	988	919	876	846
10	981	902	856	825	972	898	854	824	964	894	852	823

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	1228	1228	1228	1228	1176	1176	1176	1128	1128	1128	1105
1	1195	1179	1164	1150	1138	1127	1116	1101	1093	1084	1066
2	1162	1134	1109	1088	1102	1082	1065	1073	1057	1044	1027
3	1131	1093	1062	1037	1068	1043	1021	1044	1024	1006	992
4	1101	1056	1021	994	1036	1007	983	1017	992	972	959
5	1072	1022	985	957	1005	974	949	990	963	941	929
6	1045	991	953	924	977	944	918	964	935	913	901
7	1019	962	923	895	951	916	891	940	910	886	875
8	994	935	896	868	926	891	865	916	885	862	851
9	970	910	871	844	902	867	841	894	862	839	829
10	948	887	848	821	880	844	820	873	841	818	808

Average Luminance Table (cd/m²)

		Horizontal Angle (Degrees)		
		0	45	90
Vertical Angle (Degree)	0	2330000	2330000	2330000
	45	12420	12420	12420
	55	9639	9639	9639
	65	6839	6839	6839
	75	2183	2183	2183
	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	120.6	45-50	7.1	90-95	0	135-140	0
5-10	283.3	50-55	6.1	95-100	0	140-145	0
10-15	284.3	55-60	5.3	100-105	0	145-150	0
15-20	190.9	60-65	4.1	105-110	0	150-155	0
20-25	103.5	65-70	2.6	110-115	0	155-160	0
25-30	49.7	70-75	1.3	115-120	0	160-165	0
30-35	24.0	75-80	0.2	120-125	0	165-170	0
35-40	13.3	80-85	0	125-130	0	170-175	0
40-45	9.0	85-90	0	130-135	0	175-180	0

Polar Plot (Candela)

