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Allentown, PA 18106
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Indoor Distribution Test Report

Relevant Standards
IES LM-79-2008, ANSI C82.77-2002

Prepared For
Mercury Lighting
20 Audrey PL
Fairfield, NJ 07004-3416
United States

Catalog Number
MLS3-F-4-3000-(750 LM/FT)-35K-HTA-A401-U
Order Number
11654729
Test Number
11654729.24

Test Date

2017-03-08

Prepared By

Javier Caban, Technician

Approved By

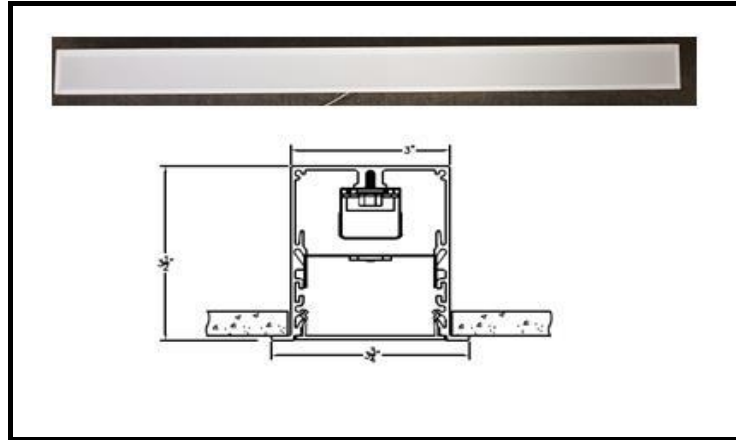
Tiffany Hamm, Project Handler

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Luminaire Description: Formed white aluminum housing, frosted plastic lens enclosure
Lamp: 96 white LEDs
Mounting: Recessed
Ballast/Driver: Philips Advanced XI040C110V054BST1
Note: Tested as MLS3 G 4 3300 35k HTA A401 U

Luminaire



Luminaire Characteristics

Luminous Length: 48.00 in.
Luminous Width: 2.875 in.

Summary of Results

Total Luminaire Output:	2988 Lumens
Luminaire Efficacy:	108.3 lm/w
Maximum Candela:	1196 Candela

Test Conditions

Test Temperature:	25.1 °C
Voltage:	120.0 VAC
Current:	0.2312 A
Power:	27.60 W
Power Factor:	0.995
Frequency:	60 Hz
Current THD:	7.94 %

Laboratory results may not be representative of field performance
Ballast factors have not been applied



Distribution - Goniophotometer

Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.1 °C	120.0 VAC	0.2312 A	27.60 W	0.995	60 Hz	7.94 %

Summary of Results

Spacing Criteria

0-180: 1.22
90-270: 1.22

Total Lumen Output:

2988 Lumens

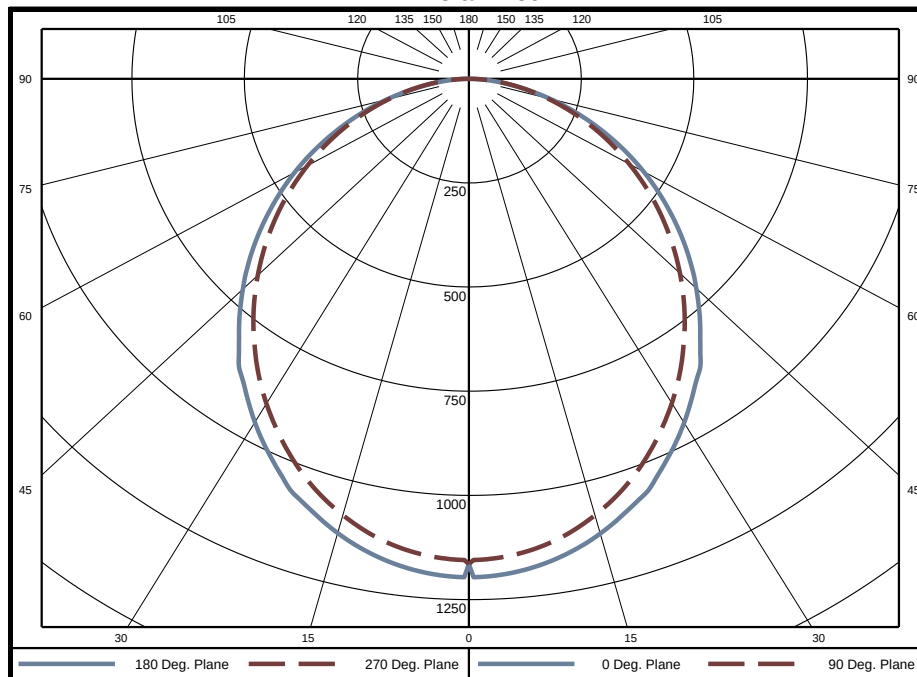
Luminaire Efficacy:

108.3 lm/w

Maximum Candela:

1196 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	27.8	0.9%	60-65	188.4	6.3%	120-125	0	0.0%
5-10	82.0	2.7%	65-70	153.8	5.1%	125-130	0	0.0%
10-15	132.3	4.4%	70-75	116.6	3.9%	130-135	0	0.0%
15-20	176.7	5.9%	75-80	78.8	2.6%	135-140	0	0.0%
20-25	213.7	7.2%	80-85	43.7	1.5%	140-145	0	0.0%
25-30	241.6	8.1%	85-90	13.9	0.5%	145-150	0	0.0%
30-35	260.1	8.7%	90-95	0	0.0%	150-155	0	0.0%
35-40	269.3	9.0%	95-100	0	0.0%	155-160	0	0.0%
40-45	268.7	9.0%	100-105	0	0.0%	160-165	0	0.0%
45-50	259.7	8.7%	105-110	0	0.0%	165-170	0	0.0%
50-55	242.6	8.1%	110-115	0	0.0%	170-175	0	0.0%
55-60	218.5	7.3%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1404	47.0%
0-60	2393	80.1%
0-90	2988	100.0%
90-180	0	0.0%



Candela Tabulation
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
	0	1165	1165	1165	1165	1165	1165	1165	1165	1165	1165	1165	1165	1165	1165	1165
	5	1188	1163	1149	1149	1147	1149	1149	1163	1188	1163	1149	1149	1147	1149	1163
	10	1165	1140	1126	1125	1123	1125	1126	1140	1165	1140	1126	1125	1123	1125	1140
	15	1129	1104	1089	1087	1084	1087	1089	1104	1129	1104	1089	1087	1084	1087	1104
	20	1083	1056	1040	1037	1034	1037	1040	1056	1083	1056	1040	1037	1034	1037	1056
	25	1023	1000	981	976	971	976	981	1000	1023	1000	981	976	971	976	1000
	30	955	931	919	907	902	907	919	931	955	931	919	907	902	907	931
	35	882	856	842	833	827	833	842	856	882	856	842	833	827	833	856
	40	799	780	764	754	747	754	764	780	799	780	764	754	747	754	780
	45	715	696	682	672	665	672	682	696	715	696	682	672	665	672	696
	50	628	611	599	589	582	589	599	611	628	611	599	589	582	589	611
	55	539	525	514	505	498	505	514	525	539	525	514	505	498	505	525
	60	450	439	430	421	415	421	430	439	450	439	430	421	415	421	439
	65	360	353	344	338	334	338	344	353	360	353	344	338	334	338	353
	70	272	268	262	258	255	258	262	268	272	268	262	258	255	258	268
	75	188	186	184	183	181	183	184	186	188	186	184	183	181	183	186
	80	111	111	113	113	113	113	113	111	111	111	113	113	113	113	111
	85	49	49	51	53	53	53	51	49	49	49	51	53	53	51	49
	90	0	0	0	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	0	0	0
	100	0	0	0	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	0	0	0
	110	0	0	0	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	0	0	0
	120	0	0	0	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	0	0	0
	130	0	0	0	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	0	0	0
	140	0	0	0	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	0	0	0
	150	0	0	0	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	0	0	0
	160	0	0	0	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	0	0	0
	170	0	0	0	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	0	0	0
	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Average Luminance (cd/m²)

Vertical Angle (Degrees)	Horizontal Angle (Degrees)			
	0	45	90	
	0	13080	13080	13080
	45	11350	10840	10570
	55	10560	10070	9757
	65	9570	9154	8866
	75	8152	7980	7842
	85	6261	6628	6798



Utilization of Lumens - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	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	3557	3557	3557	3557	3475	3475	3475	3475	3320	3320	3320	3179	3179	3179	3049	3049	3049	2988
1	3255	3114	2987	2874	3173	3046	2931	2827	2919	2824	2737	2802	2725	2653	2694	2633	2575	2512
2	2965	2722	2521	2352	2887	2666	2481	2324	2560	2404	2269	2462	2332	2218	2372	2264	2168	2104
3	2708	2397	2156	1965	2634	2350	2127	1947	2261	2070	1912	2179	2016	1879	2102	1965	1847	1782
4	2483	2129	1870	1672	2415	2090	1848	1660	2015	1804	1637	1945	1763	1615	1881	1723	1593	1529
5	2287	1907	1642	1446	2225	1874	1624	1438	1811	1590	1422	1752	1558	1406	1697	1527	1391	1328
6	2115	1721	1456	1267	2058	1693	1443	1261	1639	1416	1250	1589	1390	1239	1542	1365	1228	1167
7	1963	1563	1304	1122	1912	1539	1293	1118	1493	1271	1110	1450	1251	1102	1410	1231	1094	1035
8	1830	1429	1177	1004	1783	1408	1168	1001	1369	1151	995	1332	1134	989	1297	1117	983	926
9	1711	1314	1071	906	1669	1296	1063	904	1262	1048	899	1230	1034	894	1199	1021	890	835
10	1606	1214	980	824	1567	1199	973	822	1169	961	818	1141	950	814	1115	938	811	759

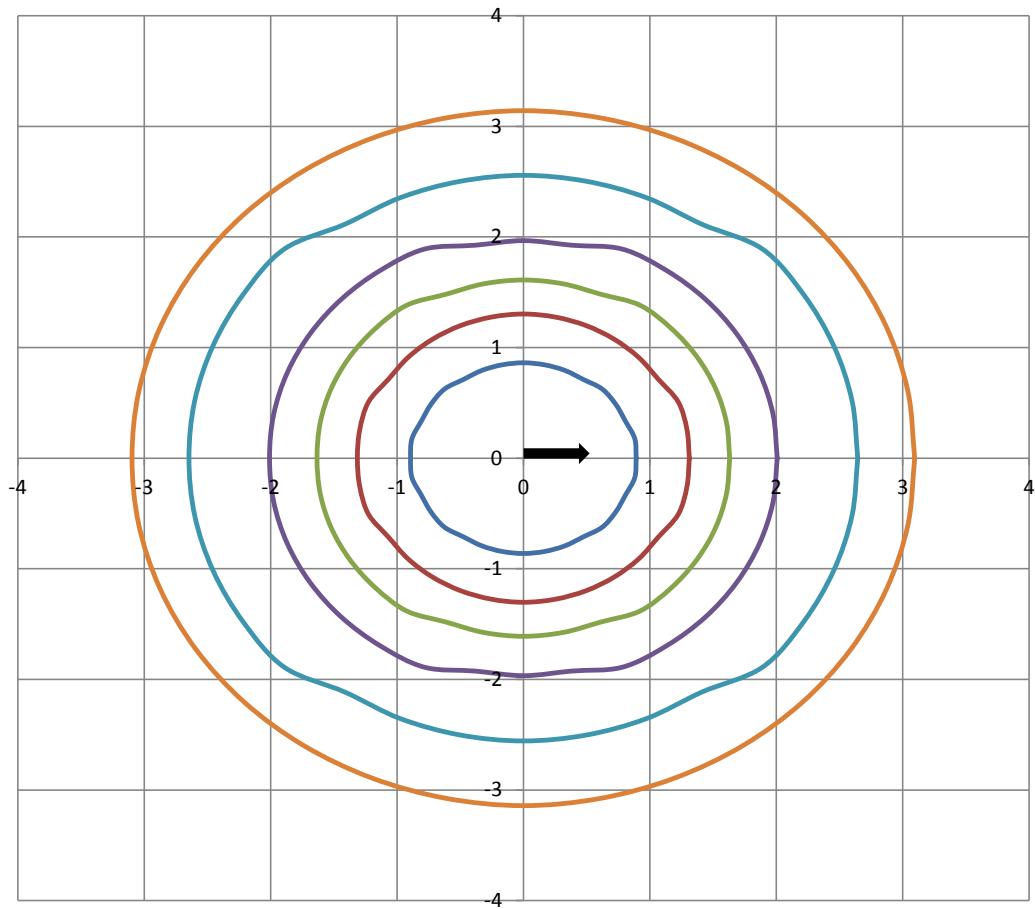
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1165 Candela
Central Cone Intensity:	1162 Candela
Beam Flux:	1986.3 Lumens
Beam Angle (0-180):	105.2 Degrees
Beam Angle (90-270):	100.0 Degrees
Field Angle (0-180):	159.2 Degrees
Field Angle (90-270):	159.4 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		72.8	4.73
6.00		32.4	7.09
8.00		18.2	9.46
10.0		11.6	11.8
12.0		8.09	14.2
14.0		5.94	16.6
16.0		4.55	18.9



ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

