



UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300



Indoor Distribution Test Report

Relevant Standards
IES LM-79-2008, ANSI C82.77-10-2014, CIE 190:2010

Prepared For
Mercury Lighting

20 Audrey Pl
Fairfield, NJ 07004-3416
United States

Catalog Number
MLS3G3-DI-4-1600-400 LMFT-1600-400 LMFT-35K-HTABW-1%-U

Order Number
12805361
Test Number
12805361.21

Test Date

2019-04-25

Prepared By

Josh Mitchell, Technician

Approved By

Alexa Lambert, Project Handler

The results contained in this report pertain only to the tested sample.
This report shall not be reproduced, except in full, without written approval of Underwriters Laboratories.
This report must not be used by the client to claim product certification, approval, or endorsement by
NVLAP, NIST, or any agency of the Federal Government.



Luminaire Description: White formed aluminum housing, frosted lenses top and bottom.
Lamp: 192 White LEDs
Mounting: Pendant
Ballast/Driver: Two (2) Philips XI020C056V054BST2 Drivers

Luminaire



Luminaire Characteristics

Luminous Length: 2.75 in.
Luminous Width: 48.00 in.
Luminous Height: 4.25 in.

Summary of Results

Total Luminaire Output: 3287 Lumens
Luminaire Efficacy: 118.8 lm/w
Maximum Candela: 719 Candela

Test Conditions

Test Temperature: 24.9 °C
Voltage: 120.0 VAC
Current: 0.2326 A
Power: 27.66 W
Power Factor: 0.991
Frequency: 60 Hz
Current THD: 11.2 %

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



Distribution - Goniophotometer

Distribution Test Conditions

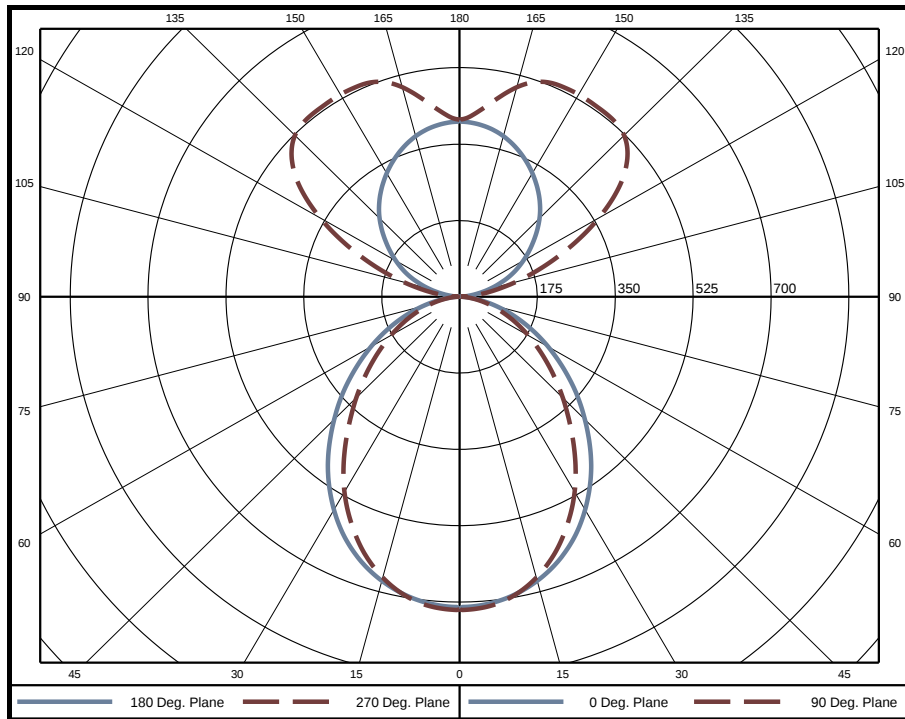
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.9 °C	120.0 VAC	0.2326 A	27.66 W	0.991	60 Hz	11.2 %

Summary of Results

Spacing Criteria
0-180: 1.18
90-270: 1.10

Total Lumen Output: 3287 Lumens
Luminaire Efficacy: 118.8 lm/w
Maximum Candela: 719 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	17.1	0.5%	60-65	88.1	2.7%	120-125	148.0	4.5%
5-10	50.5	1.5%	65-70	69.6	2.1%	125-130	159.5	4.9%
10-15	81.3	2.5%	70-75	50.8	1.5%	130-135	162.1	4.9%
15-20	108.1	3.3%	75-80	33.0	1.0%	135-140	156.9	4.8%
20-25	129.4	3.9%	80-85	17.0	0.5%	140-145	146.4	4.5%
25-30	144.1	4.4%	85-90	5.4	0.2%	145-150	132.5	4.0%
30-35	151.6	4.6%	90-95	8.7	0.3%	150-155	115.8	3.5%
35-40	151.7	4.6%	95-100	27.4	0.8%	155-160	96.4	2.9%
40-45	145.7	4.4%	100-105	50.6	1.5%	160-165	74.6	2.3%
45-50	135.5	4.1%	105-110	77.1	2.3%	165-170	51.9	1.6%
50-55	121.9	3.7%	110-115	104.1	3.2%	170-175	30.1	0.9%
55-60	105.8	3.2%	115-120	128.6	3.9%	175-180	9.8	0.3%

Zone	Lumens	% of Luminaire
0-40	834	25.4%
0-60	1343	40.8%
0-90	1607	48.9%
90-180	1681	51.1%



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	716.8	716.8	716.8	716.8	716.8	716.8	716.8	716.8	716.8	716.8	716.8	716.8	716.8	716.8	716.8
	5	708.0	714.2	710.9	713.6	713.4	713.6	710.9	714.2	708.0	714.2	710.9	713.6	713.4	713.6	710.9
	10	695.5	701.0	696.7	697.6	696.5	697.6	696.7	701.0	695.5	701.0	696.7	697.6	696.5	697.6	696.7
	15	674.9	679.8	672.3	670.3	666.6	670.3	672.3	679.8	674.9	679.8	672.3	670.3	666.6	670.3	672.3
	20	646.6	649.7	637.8	630.7	625.7	630.7	637.8	649.7	646.6	649.7	637.8	630.7	625.7	630.7	637.8
	25	609.9	611.2	594.6	582.7	574.3	582.7	594.6	611.2	609.9	611.2	594.6	582.7	574.3	582.7	594.6
	30	564.6	564.9	543.3	526.4	517.0	526.4	543.3	564.9	564.6	564.9	543.3	526.4	517.0	526.4	543.3
	35	513.6	511.3	485.7	463.1	452.6	463.1	485.7	511.3	513.6	511.3	485.7	463.1	452.6	463.1	485.7
	40	457.4	452.6	423.9	398.0	387.4	398.0	423.9	452.6	457.4	452.6	423.9	398.0	387.4	398.0	423.9
	45	398.6	392.9	362.9	338.1	328.2	338.1	362.9	392.9	398.6	392.9	362.9	338.1	328.2	338.1	362.9
	50	341.6	334.6	306.2	282.2	273.1	282.2	306.2	334.6	341.6	334.6	306.2	282.2	273.1	282.2	306.2
	55	284.2	278.5	253.0	231.4	223.2	231.4	253.0	278.5	284.2	278.5	253.0	231.4	223.2	231.4	253.0
	60	230.4	225.1	203.0	185.4	178.6	185.4	203.0	225.1	230.4	225.1	203.0	185.4	178.6	185.4	203.0
	65	179.4	175.6	157.6	143.3	138.2	143.3	157.6	175.6	179.4	175.6	157.6	143.3	138.2	143.3	157.6
	70	131.8	129.5	116.0	104.9	101.2	104.9	116.0	129.5	131.8	129.5	116.0	104.9	101.2	104.9	116.0
	75	87.7	86.9	78.0	71.4	69.6	71.4	78.0	86.9	87.7	86.9	78.0	71.4	69.6	71.4	78.0
	80	48.7	49.0	45.2	41.9	40.9	41.9	45.2	49.0	48.7	49.0	45.2	41.9	40.9	41.9	45.2
	85	18.3	19.6	19.1	18.3	18.1	18.3	19.1	19.6	18.3	19.6	19.1	18.3	18.1	18.3	19.1
	90	2.8	4.8	4.7	4.9	4.7	4.9	4.7	4.8	2.8	4.8	4.7	4.9	4.7	4.9	4.7
	95	17.8	26.5	41.2	35.1	31.8	35.1	41.2	26.5	17.8	26.5	41.2	35.1	31.8	35.1	41.2
	100	42.1	58.6	86.7	79.7	73.6	79.7	86.7	58.6	42.1	58.6	86.7	79.7	73.6	79.7	86.7
	105	72.5	97.8	141.5	138.7	130.8	138.7	141.5	97.8	72.5	97.8	141.5	138.7	130.8	138.7	141.5
	110	104.6	142.0	202.3	208.3	199.5	208.3	202.3	142.0	104.6	142.0	202.3	208.3	199.5	208.3	202.3
	115	136.7	185.5	262.4	285.8	278.6	285.8	262.4	185.5	136.7	185.5	262.4	285.8	278.6	285.8	262.4
	120	165.8	226.9	321.9	361.4	361.6	361.4	321.9	226.9	165.8	226.9	321.9	361.4	361.6	361.4	321.9
	125	195.1	265.5	373.7	427.2	437.1	427.2	373.7	265.5	195.1	265.5	373.7	427.2	437.1	427.2	373.7
	130	224.9	301.1	411.4	474.5	491.9	474.5	411.4	301.1	224.9	301.1	411.4	474.5	491.9	474.5	411.4
	135	254.4	331.0	435.5	501.7	522.8	501.7	435.5	331.0	254.4	331.0	435.5	501.7	522.8	501.7	435.5
	140	280.9	356.3	452.6	512.4	532.8	512.4	452.6	356.3	280.9	356.3	452.6	512.4	532.8	512.4	452.6
	145	305.0	376.5	466.2	517.1	534.1	517.1	466.2	376.5	305.0	376.5	466.2	517.1	534.1	517.1	466.2
	150	327.2	390.9	475.1	521.3	535.4	521.3	475.1	390.9	327.2	390.9	475.1	521.3	535.4	521.3	475.1
	155	347.7	401.1	476.4	521.2	533.8	521.2	476.4	401.1	347.7	401.1	476.4	521.2	533.8	521.2	476.4
	160	365.9	406.9	467.5	511.2	524.5	511.2	467.5	406.9	365.9	406.9	467.5	511.2	524.5	511.2	467.5
	165	381.1	409.1	449.8	485.3	497.4	485.3	449.8	409.1	381.1	409.1	449.8	485.3	497.4	485.3	449.8
	170	392.2	408.9	428.7	450.0	457.7	450.0	428.7	408.9	392.2	408.9	428.7	450.0	457.7	450.0	428.7
	175	398.9	407.3	411.5	419.3	422.8	419.3	411.5	407.3	398.9	407.3	411.5	419.3	422.8	419.3	411.5
	180	405.5	405.5	405.5	405.5	405.5	405.5	405.5	405.5	405.5	405.5	405.5	405.5	405.5	405.5	405.5

Average Luminance (cd/m²)

Vertical Angle (Degrees)	Horizontal Angle (Degrees)			
		0	45	90
	0	8417	8417	8417
	45	2600	2796	5007
	55	1814	1954	4057
	65	1155	1259	3226
	75	588	667	2374
	85	132	181	1210



Coefficients of Utilization - 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 percent of total lumen output delivered to the task surface **																	
0	107	107	107	107	98	98	98	98	83	83	83	68	68	68	55	55	55	49
1	98	94	90	87	90	86	83	80	73	71	69	61	59	58	49	48	47	42
2	89	82	76	71	82	76	71	66	64	61	57	54	51	49	44	42	40	36
3	82	73	65	60	75	67	61	56	57	52	49	48	44	41	39	37	35	31
4	75	64	57	51	69	60	53	48	51	46	42	43	39	36	35	32	30	26
5	69	58	50	44	63	53	46	41	46	40	36	38	34	31	32	29	26	23
6	64	52	44	38	58	48	41	36	41	36	32	35	31	28	29	26	23	21
7	59	47	39	34	54	44	37	32	38	32	28	32	28	24	27	23	21	18
8	55	43	35	30	50	40	33	28	34	29	25	29	25	22	24	21	19	17
9	51	39	32	27	47	36	30	25	31	26	22	27	23	20	23	19	17	15
10	48	36	29	24	44	33	27	23	29	24	20	25	21	18	21	18	16	14

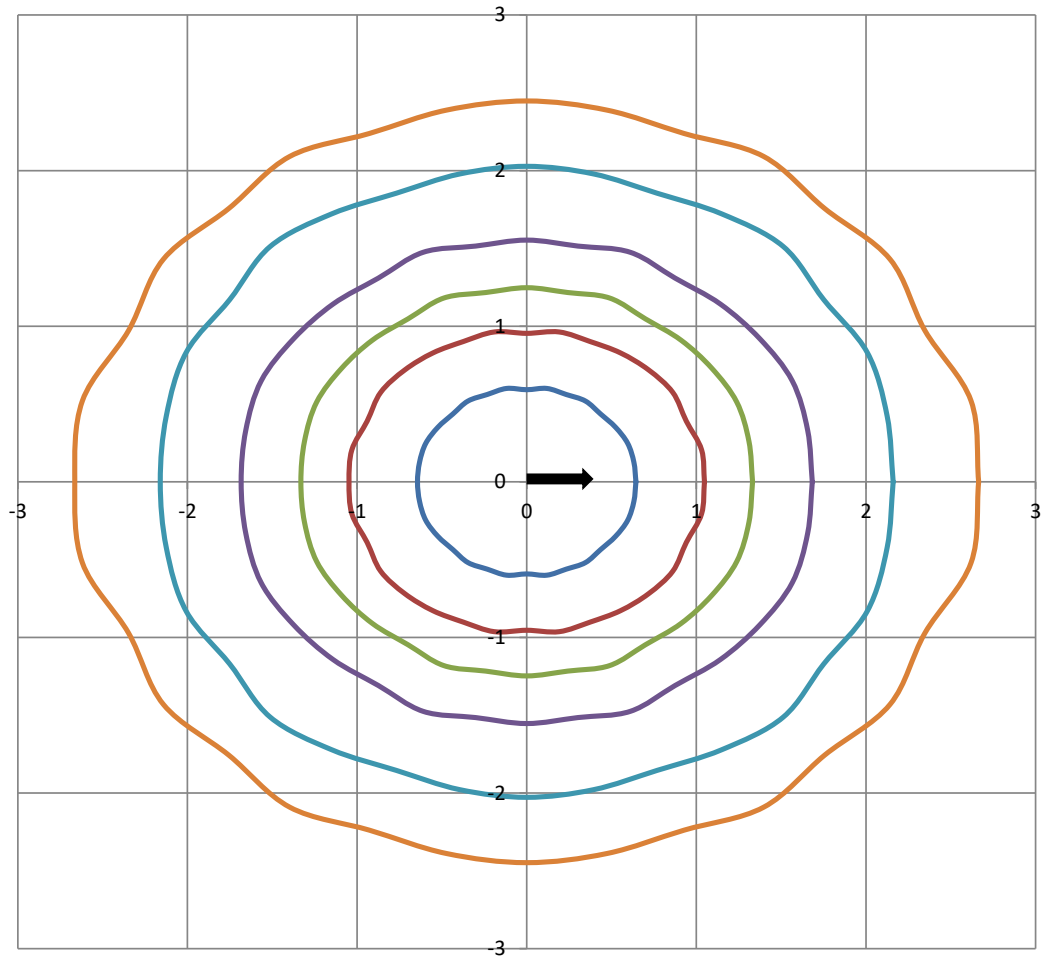
Beam and Field Information	
CIE Type:	Direct/Indirect
Center Beam Intensity:	716.8 Candela
Central Cone Intensity:	715 Candela
Beam Flux:	2045.0 Lumens
Beam Angle (0-180):	97.0 Degrees
Beam Angle (90-270):	84.7 Degrees
Field Angle (0-180):	154.0 Degrees
Field Angle (90-270):	149.3 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		44.8	4.57
6.00		19.9	6.85
8.00		11.2	9.13
10.0		7.17	11.4
12.0		4.98	13.7
14.0		3.66	16.0
16.0		2.80	18.3



ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height





Unified Glare Rating

Flux Correction Term: 4.1 Normalization Flux: 1000 lm
 Luminaire Flux: 3287 lm Spacing Height Ratio: 1 H
 Bare Lamp Flux: -1 lm

Absolute UGR Table											
Ceiling Reflectance	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3	
Wall Reflectance	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3	
Floor Reflectance	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Room Dimensions		Viewed Crosswise					Viewed Endwise				
x	y										
2H	2H	11.8	12.6	12.8	13.6	14.9	8.4	9.2	9.4	10.2	11.5
2H	3H	13.2	14.0	14.2	15.0	16.3	9.4	10.1	10.4	11.1	12.5
2H	4H	13.7	14.4	14.7	15.4	16.7	9.7	10.4	10.7	11.4	12.7
2H	6H	14.0	14.6	15.0	15.7	17.0	9.8	10.4	10.8	11.4	12.8
2H	8H	14.1	14.7	15.1	15.7	17.0	9.8	10.4	10.8	11.4	12.8
2H	12H	14.1	14.6	15.1	15.7	17.0	9.8	10.4	10.8	11.4	12.7
4H	2H	11.8	12.5	12.9	13.5	14.9	9.0	9.7	10.0	10.7	12.0
4H	3H	13.4	14.0	14.5	15.0	16.4	10.1	10.7	11.1	11.7	13.1
4H	4H	14.0	14.5	15.0	15.6	16.9	10.5	11.0	11.5	12.0	13.4
4H	6H	14.4	14.8	15.4	15.9	17.2	10.7	11.1	11.7	12.2	13.5
4H	8H	14.4	14.9	15.5	15.9	17.3	10.7	11.1	11.7	12.1	13.5
4H	12H	14.5	14.9	15.5	15.9	17.3	10.7	11.0	11.7	12.1	13.5
8H	4H	14.0	14.4	15.0	15.4	16.8	10.7	11.1	11.7	12.1	13.5
8H	6H	14.4	14.7	15.4	15.8	17.2	10.9	11.3	12.0	12.3	13.7
8H	8H	14.5	14.8	15.6	15.9	17.3	11.0	11.3	12.0	12.3	13.7
8H	12H	14.5	14.8	15.6	15.9	17.3	11.0	11.3	12.1	12.3	13.7
12H	4H	13.9	14.3	15.0	15.3	16.7	10.7	11.0	11.7	12.1	13.5
12H	6H	14.3	14.6	15.4	15.7	17.1	10.9	11.2	12.0	12.3	13.7
12H	8H	14.5	14.7	15.5	15.8	17.2	11.0	11.3	12.1	12.3	13.8