



UL Verification Services Inc.
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Allentown, PA 18106
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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
MLS2G3-DI-4-1460-365 LMFT-1700-425 LMFT-35K-HTABW-1%-U

Order Number

12805361

Test Number

12805361.01B

Revision of Test Number 12805361.01A on:

2020-03-30

Test Date

2019-04-25

Prepared By

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Approved By

Alexa Lambert, Project Handler

The results contained in this report pertain only to the tested sample.
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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: 48.00 in.
Luminous Width: 1.380 in.
Luminous Height: 4.13 in.

Summary of Results

Total Luminaire Output:	3176 Lumens
Luminaire Efficacy:	103.8 lm/w
Maximum Candela:	703 Candela

Test Conditions

Test Temperature:	24.3 °C
Voltage:	120.0 VAC
Current:	0.2568 A
Power:	30.59 W
Power Factor:	0.992
Frequency:	60 Hz
Current THD:	10.4 %

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



Distribution - Goniophotometer

Distribution Test Conditions

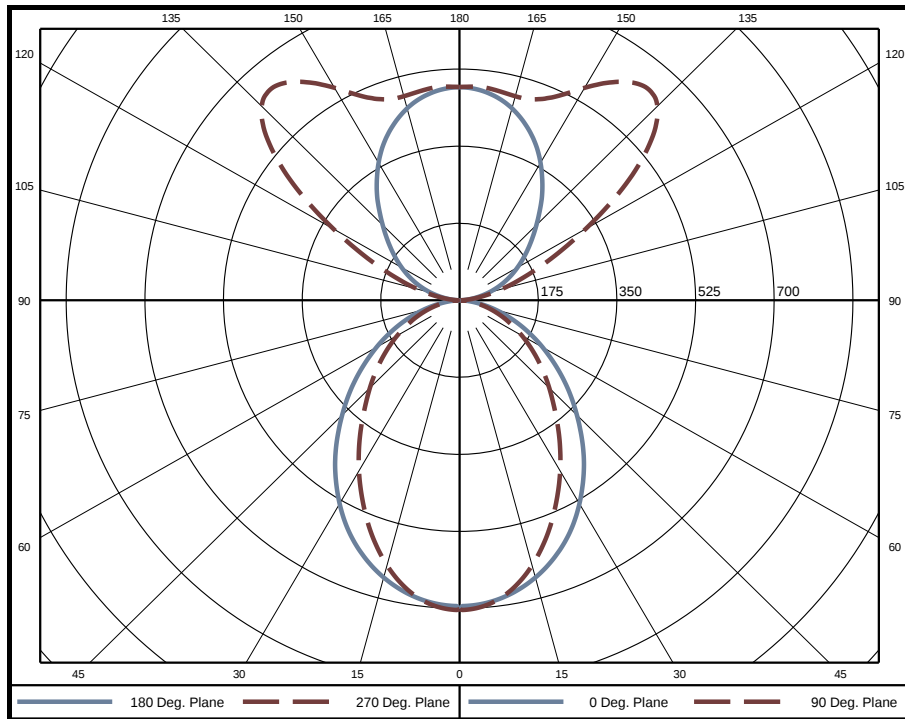
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.3 °C	120.0 VAC	0.2568 A	30.59 W	0.992	60 Hz	10.4 %

Summary of Results

Spacing Criteria
0-180: 1.14
90-270: 1.00

Total Lumen Output: 3176 Lumens
Luminaire Efficacy: 103.8 lm/w
Maximum Candela: 703 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	16.7	0.5%	60-65	80.3	2.5%	120-125	153.0	4.8%
5-10	48.9	1.5%	65-70	64.1	2.0%	125-130	170.3	5.4%
10-15	77.9	2.5%	70-75	47.5	1.5%	130-135	174.8	5.5%
15-20	101.9	3.2%	75-80	31.1	1.0%	135-140	167.0	5.3%
20-25	119.8	3.8%	80-85	16.1	0.5%	140-145	151.1	4.8%
25-30	131.1	4.1%	85-90	4.9	0.2%	145-150	132.0	4.2%
30-35	136.0	4.3%	90-95	6.4	0.2%	150-155	112.7	3.5%
35-40	135.0	4.3%	95-100	25.5	0.8%	155-160	94.1	3.0%
40-45	129.4	4.1%	100-105	47.1	1.5%	160-165	75.7	2.4%
45-50	120.6	3.8%	105-110	72.0	2.3%	165-170	55.9	1.8%
50-55	109.2	3.4%	110-115	99.3	3.1%	170-175	34.4	1.1%
55-60	95.6	3.0%	115-120	127.4	4.0%	175-180	11.6	0.4%

Zone	Lumens	% of Luminaire
0-40	767	24.2%
0-60	1222	38.5%
0-90	1466	46.2%
90-180	1710	53.9%



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	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0
	5	689.9	697.7	693.0	694.8	694.3	694.8	693.0	697.7	689.9	697.7	693.0	694.8	694.3	694.8	693.0
	10	675.4	681.2	672.6	669.6	666.8	669.6	672.6	681.2	675.4	681.2	672.6	669.6	666.8	669.6	672.6
	15	651.9	655.1	639.3	629.6	623.0	629.6	639.3	655.1	651.9	655.1	639.3	629.6	623.0	629.6	639.3
	20	620.2	619.7	595.5	577.1	568.4	577.1	595.5	619.7	620.2	619.7	595.5	577.1	568.4	577.1	595.5
	25	581.0	576.2	544.2	519.4	507.9	519.4	544.2	576.2	581.0	576.2	544.2	519.4	507.9	519.4	544.2
	30	533.4	526.0	488.5	459.3	447.5	459.3	488.5	526.0	533.4	526.0	488.5	459.3	447.5	459.3	488.5
	35	481.4	471.0	430.5	399.0	387.7	399.0	430.5	471.0	481.4	471.0	430.5	399.0	387.7	399.0	430.5
	40	426.1	413.2	373.0	342.3	331.0	342.3	373.0	413.2	426.1	413.2	373.0	342.3	331.0	342.3	373.0
	45	369.4	357.0	319.5	292.0	282.4	292.0	319.5	357.0	369.4	357.0	319.5	292.0	282.4	292.0	319.5
	50	315.7	303.6	270.8	247.2	238.4	247.2	270.8	303.6	315.7	303.6	270.8	247.2	238.4	247.2	270.8
	55	262.8	253.2	226.1	205.5	197.7	205.5	226.1	253.2	262.8	253.2	226.1	205.5	197.7	205.5	226.1
	60	213.3	205.9	183.9	166.5	159.9	166.5	183.9	205.9	213.3	205.9	183.9	166.5	159.9	166.5	183.9
	65	166.5	161.9	144.2	129.3	124.5	129.3	144.2	161.9	166.5	161.9	144.2	129.3	124.5	129.3	144.2
	70	123.1	120.9	106.7	97.2	93.4	97.2	106.7	120.9	123.1	120.9	106.7	97.2	93.4	97.2	106.7
	75	82.9	82.0	73.1	67.1	64.4	67.1	73.1	82.0	82.9	82.0	73.1	67.1	64.4	67.1	73.1
	80	46.5	46.7	42.7	39.5	38.2	39.5	42.7	46.7	46.5	46.7	42.7	39.5	38.2	39.5	42.7
	85	18.4	19.0	17.9	17.0	16.4	17.0	17.9	19.0	18.4	19.0	17.9	17.0	16.4	17.0	17.9
	90	2.3	3.2	3.3	3.8	3.6	3.8	3.3	3.2	2.3	3.2	3.3	3.8	3.6	3.8	3.3
	95	17.3	36.0	36.8	21.8	18.3	21.8	36.8	36.0	17.3	36.0	36.8	21.8	18.3	21.8	36.8
	100	39.7	70.4	88.1	61.1	51.3	61.1	88.1	70.4	39.7	70.4	88.1	61.1	51.3	61.1	88.1
	105	66.3	106.7	148.0	109.5	95.7	109.5	148.0	106.7	66.3	106.7	148.0	109.5	95.7	109.5	148.0
	110	93.8	145.2	223.7	171.4	151.4	171.4	223.7	145.2	93.8	145.2	223.7	171.4	151.4	171.4	223.7
	115	121.2	180.3	305.9	253.4	225.7	253.4	305.9	180.3	121.2	180.3	305.9	253.4	225.7	253.4	305.9
	120	148.5	210.9	382.8	358.0	323.6	358.0	382.8	210.9	148.5	210.9	382.8	358.0	323.6	358.0	382.8
	125	177.1	237.7	437.0	472.0	442.2	472.0	437.0	237.7	177.1	237.7	437.0	472.0	442.2	472.0	437.0
	130	207.7	263.6	461.0	559.8	551.7	559.8	461.0	263.6	207.7	263.6	461.0	559.8	551.7	559.8	461.0
	135	241.9	288.4	459.9	601.0	622.2	601.0	459.9	288.4	241.9	288.4	459.9	601.0	622.2	601.0	459.9
	140	280.9	314.9	448.8	593.0	635.4	593.0	448.8	314.9	280.9	314.9	448.8	593.0	635.4	593.0	448.8
	145	321.3	343.7	437.9	558.2	605.0	558.2	437.9	343.7	321.3	343.7	437.9	558.2	605.0	558.2	437.9
	150	360.2	374.9	432.7	517.2	557.1	517.2	432.7	374.9	360.2	374.9	432.7	517.2	557.1	517.2	432.7
	155	396.2	407.0	436.2	486.0	510.9	486.0	436.2	407.0	396.2	407.0	436.2	486.0	510.9	486.0	436.2
	160	426.3	435.8	448.7	472.8	485.4	472.8	448.7	435.8	426.3	435.8	448.7	472.8	485.4	472.8	448.7
	165	451.2	458.7	464.4	474.8	479.4	474.8	464.4	458.7	451.2	458.7	464.4	474.8	479.4	474.8	464.4
	170	469.1	474.4	476.6	481.8	483.3	481.8	476.6	474.4	469.1	474.4	476.6	481.8	483.3	481.8	476.6
	175	480.0	482.5	481.6	485.0	486.4	485.0	481.6	482.5	480.0	482.5	481.6	485.0	486.4	485.0	481.6
	180	483.9	483.9	483.9	483.9	483.9	483.9	483.9	483.9	483.9	483.9	483.9	483.9	483.9	483.9	483.9

Average Luminance (cd/m²)
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	16400	16400
	45	11260	3330
	55	9551	2247
	65	7785	1409
	75	5676	725
	85	2491	186



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	106	106	106	106	97	97	97	97	81	81	81	66	66	66	53	53	53	46
1	97	93	89	86	89	86	82	79	72	69	67	59	57	56	47	46	45	39
2	89	82	76	71	81	75	70	66	63	59	56	52	49	47	42	40	38	34
3	81	72	65	59	74	66	60	55	56	51	48	46	43	40	37	35	33	29
4	74	64	56	50	68	59	52	47	50	45	41	41	38	35	34	31	29	25
5	68	57	49	43	63	53	46	41	45	40	35	37	33	30	30	28	25	22
6	63	51	44	38	58	48	41	36	41	35	31	34	30	27	28	25	22	20
7	58	47	39	33	54	43	36	31	37	31	28	31	27	24	25	22	20	18
8	54	42	35	30	50	39	33	28	34	28	25	28	24	21	23	20	18	16
9	51	39	31	26	47	36	29	25	31	26	22	26	22	19	22	19	17	14
10	47	36	28	24	44	33	27	23	29	24	20	24	20	18	20	17	15	13

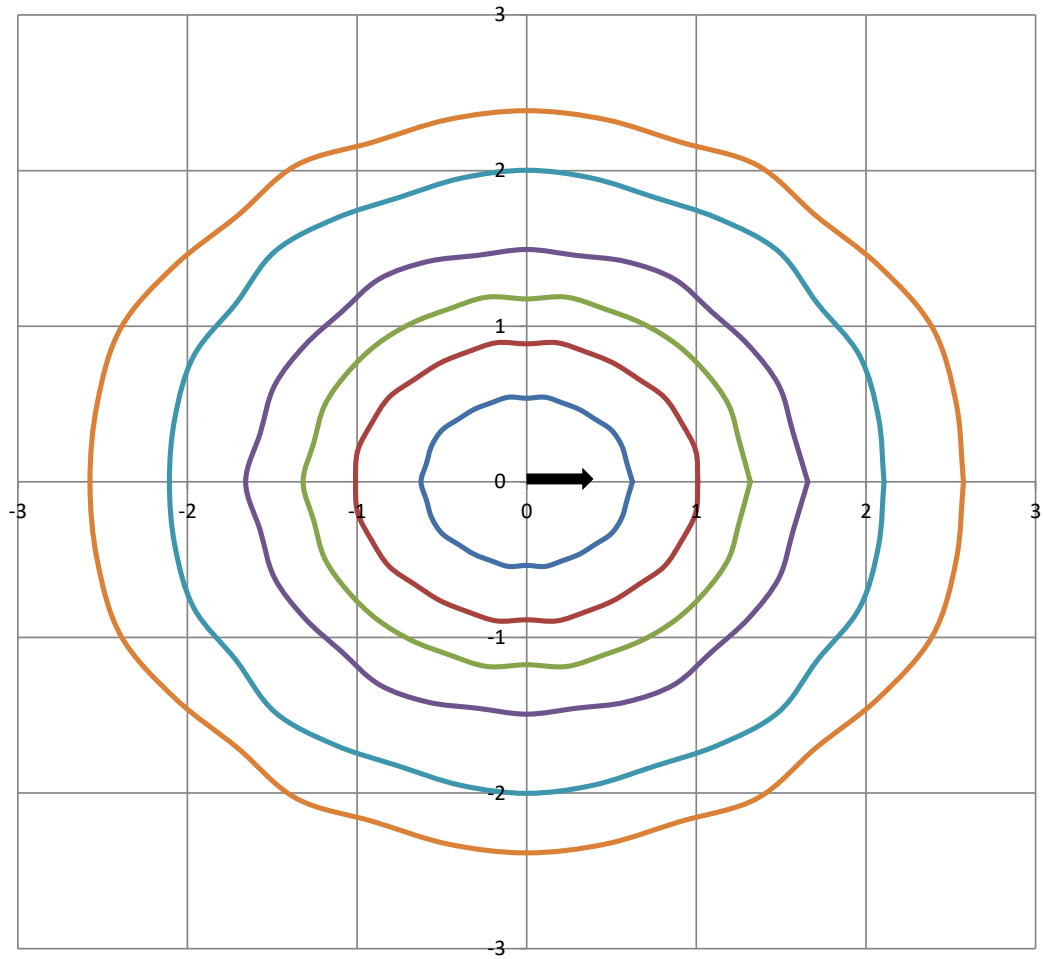
Beam and Field Information	
CIE Type:	Direct/Indirect
Center Beam Intensity:	701.0 Candela
Central Cone Intensity:	699 Candela
Beam Flux:	1977.8 Lumens
Beam Angle (0-180):	93.5 Degrees
Beam Angle (90-270):	76.5 Degrees
Field Angle (0-180):	153.4 Degrees
Field Angle (90-270):	147.9 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		43.8	4.28
6.00		19.5	6.43
8.00		11.0	8.57
10.0		7.01	10.7
12.0		4.87	12.9
14.0		3.58	15.0
16.0		2.74	17.1



ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

5 fc 2 fc 1 fc 0.5 fc 0.2 fc 0.1 fc



Unified Glare Rating

Flux Correction Term: 4 Normalization Flux: 1000 lm
 Luminaire Flux: 3176 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	12.5	13.3	13.5	14.3	15.6	8.3	9.1	9.3	10.1	11.5
2H	3H	14.0	14.7	15.0	15.7	17.1	9.3	10.1	10.3	11.1	12.4
2H	4H	14.5	15.2	15.5	16.2	17.6	9.6	10.3	10.6	11.3	12.7
2H	6H	14.8	15.5	15.9	16.5	17.9	9.7	10.4	10.8	11.4	12.7
2H	8H	14.9	15.5	16.0	16.6	17.9	9.7	10.3	10.8	11.4	12.7
2H	12H	14.9	15.5	16.0	16.5	17.9	9.7	10.3	10.7	11.3	12.7
4H	2H	12.5	13.2	13.5	14.2	15.6	9.0	9.6	10.0	10.7	12.0
4H	3H	14.1	14.7	15.2	15.8	17.1	10.1	10.7	11.1	11.7	13.1
4H	4H	14.7	15.2	15.8	16.3	17.7	10.4	11.0	11.5	12.0	13.4
4H	6H	15.1	15.6	16.2	16.6	18.0	10.6	11.1	11.7	12.1	13.5
4H	8H	15.2	15.6	16.3	16.7	18.1	10.6	11.0	11.7	12.1	13.5
4H	12H	15.3	15.6	16.3	16.7	18.1	10.6	11.0	11.7	12.1	13.5
8H	4H	14.7	15.1	15.7	16.1	17.6	10.7	11.1	11.7	12.1	13.5
8H	6H	15.1	15.4	16.2	16.5	17.9	10.9	11.2	12.0	12.3	13.7
8H	8H	15.2	15.5	16.3	16.6	18.0	11.0	11.3	12.0	12.3	13.8
8H	12H	15.3	15.6	16.4	16.6	18.1	11.0	11.2	12.0	12.3	13.8
12H	4H	14.6	15.0	15.7	16.1	17.5	10.6	11.0	11.7	12.1	13.5
12H	6H	15.1	15.4	16.1	16.4	17.9	10.9	11.2	12.0	12.3	13.7
12H	8H	15.2	15.5	16.3	16.5	18.0	11.0	11.2	12.1	12.3	13.8