



UL Verification Services Inc.
7036 Snowdrift Road
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
MLS2-RD-M-48-475-35K-ASO-1%-U
Order Number
12584341
Test Number
12584341.01C

Revision of Test #12584341.01B on:

2021-05-28
Test Date

2018-11-01

Prepared By

Cordaryl Cousar, Technician

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 aluminum housing, frosted lens enclosure
Lamp: 96 LED's, two boards with 48 LED's each
Mounting: Surface – Ceiling
Ballast/Driver: Philips Xitanium XI040C110V054BST1

Luminaire



Luminaire Characteristics

Luminous Length: 48.00 in.
Luminous Width: 1.500 in.

Summary of Results

Total Luminaire Output:	1930 Lumens
Luminaire Efficacy:	81.2 lm/w
Maximum Candela:	698 Candela

Test Conditions

Test Temperature:	25.3 °C
Voltage:	120.0 VAC
Current:	0.1999 A
Power:	23.78 W
Power Factor:	0.991
Frequency:	60 Hz
Current THD:	11.4 %

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
25.3 °C	120.0 VAC	0.1999 A	23.78 W	0.991	60 Hz	11.4 %

Summary of Results

Spacing Criteria

0-180: 1.28
90-270: 1.23

Total Lumen Output:

1930 Lumens

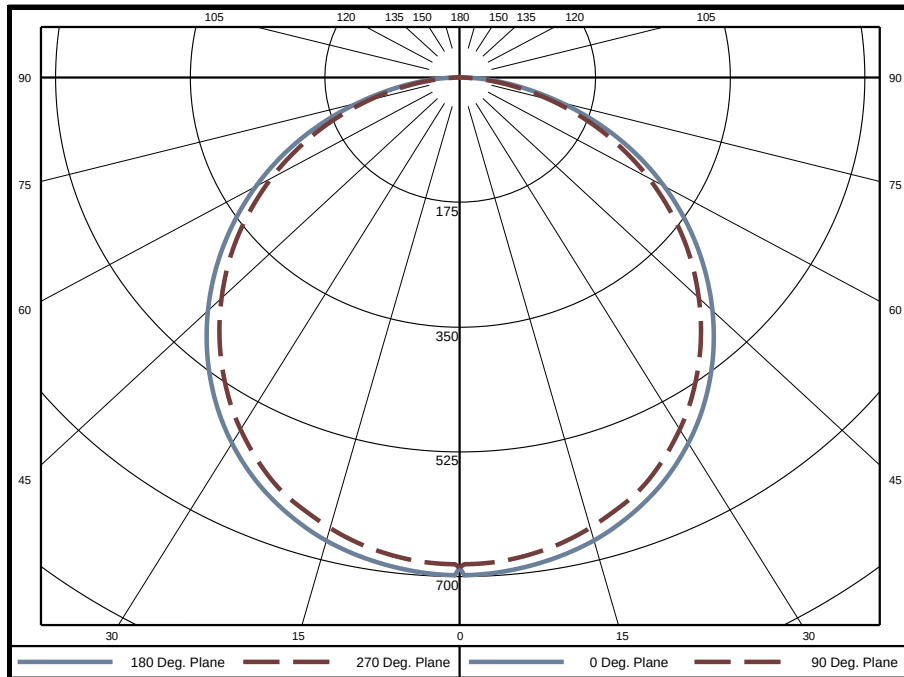
Luminaire Efficacy:

81.2 lm/w

Maximum Candela:

698 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	16.4	0.8%	60-65	128.5	6.7%	120-125	0	0.0%
5-10	48.6	2.5%	65-70	106.2	5.5%	125-130	0	0.0%
10-15	79.1	4.1%	70-75	80.7	4.2%	130-135	0	0.0%
15-20	107.0	5.5%	75-80	54.3	2.8%	135-140	0	0.0%
20-25	131.2	6.8%	80-85	29.2	1.5%	140-145	0	0.0%
25-30	150.6	7.8%	85-90	7.4	0.4%	145-150	0	0.0%
30-35	164.5	8.5%	90-95	0	0.0%	150-155	0	0.0%
35-40	172.5	8.9%	95-100	0	0.0%	155-160	0	0.0%
40-45	174.5	9.0%	100-105	0	0.0%	160-165	0	0.0%
45-50	170.8	8.8%	105-110	0	0.0%	165-170	0	0.0%
50-55	161.5	8.4%	110-115	0	0.0%	170-175	0	0.0%
55-60	147.3	7.6%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	870	45.1%
0-60	1524	79.0%
0-90	1930	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	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	5	694.6	684.2	681.2	683.5	679.6	683.5	681.2	684.2	694.6	684.2	681.2	683.5	679.6	683.5	681.2
	10	685.9	675.0	671.7	673.8	669.8	673.8	671.7	675.0	685.9	675.0	671.7	673.8	669.8	673.8	671.7
	15	672.0	660.5	656.4	657.3	653.6	657.3	656.4	660.5	672.0	660.5	656.4	657.3	653.6	657.3	656.4
	20	651.4	640.0	635.7	637.0	632.9	637.0	635.7	640.0	651.4	640.0	635.7	637.0	632.9	637.0	635.7
	25	625.0	613.6	608.8	609.2	605.2	609.2	608.8	613.6	625.0	613.6	608.8	609.2	605.2	609.2	608.8
	30	592.1	581.0	575.5	574.5	570.2	574.5	575.5	581.0	592.1	581.0	575.5	574.5	570.2	574.5	575.5
	35	553.8	542.5	536.5	534.3	530.3	534.3	536.5	542.5	553.8	542.5	536.5	534.3	530.3	534.3	536.5
	40	510.4	499.0	492.9	489.8	486.0	489.8	492.9	499.0	510.4	499.0	492.9	489.8	486.0	489.8	492.9
	45	463.1	452.0	446.0	441.9	438.5	441.9	446.0	452.0	463.1	452.0	446.0	441.9	438.5	441.9	446.0
	50	412.9	401.7	395.8	392.0	389.2	392.0	395.8	401.7	412.9	401.7	395.8	392.0	389.2	392.0	395.8
	55	360.6	349.5	344.0	339.9	337.0	339.9	344.0	349.5	360.6	349.5	344.0	339.9	337.0	339.9	344.0
	60	306.3	296.0	290.1	286.4	283.6	286.4	290.1	296.0	306.3	296.0	290.1	286.4	283.6	286.4	290.1
	65	250.8	241.6	235.9	231.8	229.3	231.8	235.9	241.6	250.8	241.6	235.9	231.8	229.3	231.8	235.9
	70	193.1	186.0	181.2	177.3	175.1	177.3	181.2	186.0	193.1	186.0	181.2	177.3	175.1	177.3	181.2
	75	136.0	131.1	126.7	122.7	121.1	122.7	126.7	131.1	136.0	131.1	126.7	122.7	121.1	122.7	126.7
	80	83.4	80.3	76.5	72.7	71.1	72.7	76.5	80.3	83.4	80.3	76.5	72.7	71.1	72.7	76.5
	85	38.6	35.6	31.0	27.8	26.8	27.8	31.0	35.6	38.6	35.6	31.0	27.8	26.8	27.8	31.0
	90	0.5	0.9	1.0	1.0	1.0	1.0	0.9	0.5	0.9	1.0	1.0	1.0	1.0	1.0	0.9
	95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Average Luminance (cd/m²)

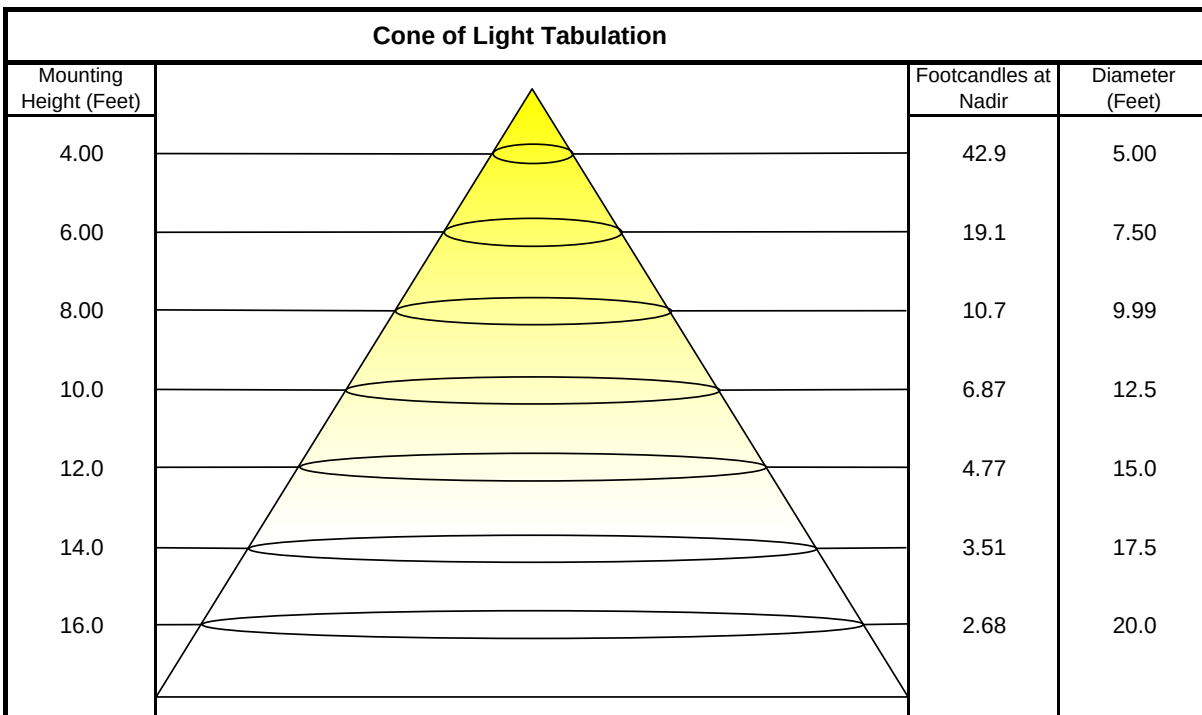
Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
	0	14790	14790
	45	14100	13350
	55	13530	12650
	65	12770	11680
	75	11320	10070
	85	9545	6610



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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	38
7	65	51	43	36	63	51	42	36	49	41	36	48	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	44	37	32	42	36	32	30
9	56	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	27
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24

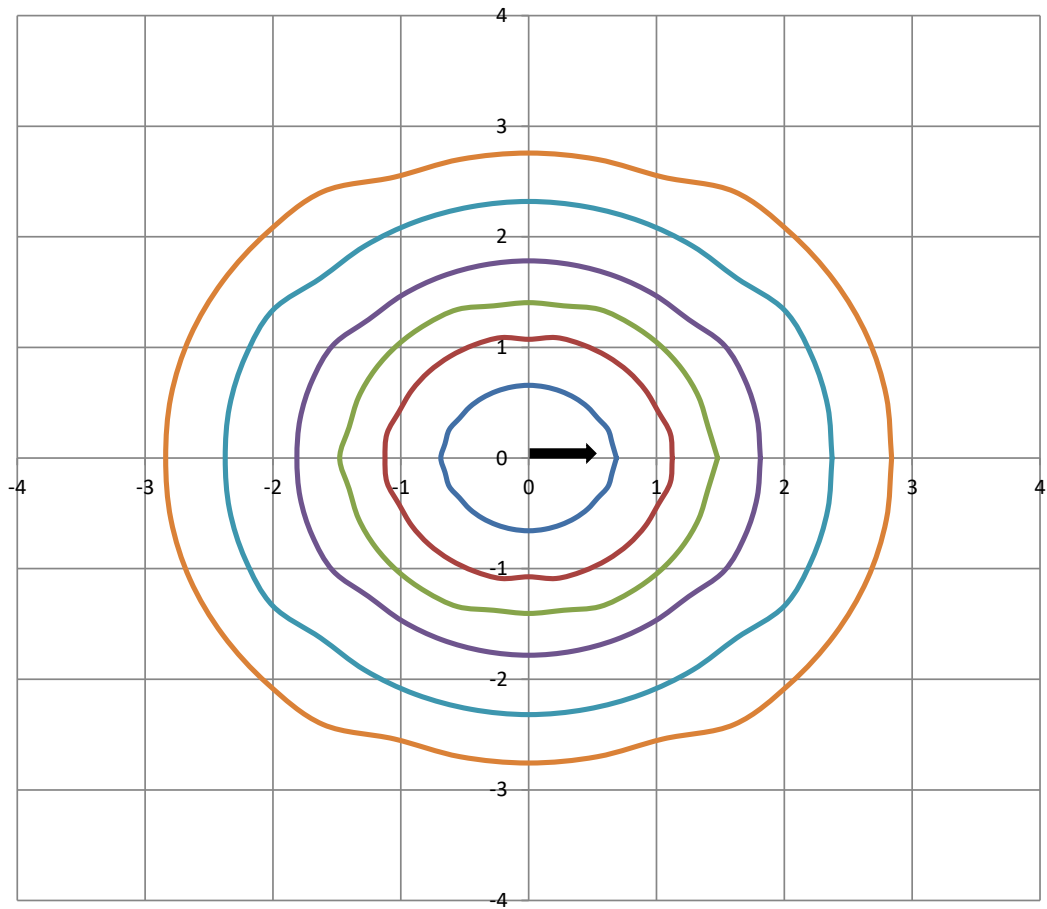
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	687.0 Candela
Central Cone Intensity:	686 Candela
Beam Flux:	1382.2 Lumens
Beam Angle (0-180):	113.2 Degrees
Beam Angle (90-270):	108.8 Degrees
Field Angle (0-180):	163.2 Degrees
Field Angle (90-270):	160.5 Degrees





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



Attachment A

Amended Report Documentation

[illegible]