



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



Indoor Distribution Test Report

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

Prepared For
H E Williams Inc

831 W Fairview Ave
PO Box 837
Carthage, MO 64836-0837
United States

Catalog Number
6PR-L20/835-DIM-UNV-L-N-OF-WH

Order Number
12326812
Test Number
12326812.32

Test Date

2018-06-08

Prepared By

Josh Mitchell, 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: Black formed aluminum housing, white reflector, clear plastic optic, clear glass patterned lens enclosure
Lamp: One white LED
Mounting: Recessed
Ballast/Driver: Philips XI025C070V054DSM5

Luminaire



Luminaire Characteristics

Luminous Diameter: 5.50 in.

Summary of Results

Total Luminaire Output:	2260 Lumens
Luminaire Efficacy:	99.7 lm/w
Maximum Candela:	8348 Candela

Test Conditions

Test Temperature:	24.8 °C
Voltage:	120.1 VAC
Current:	0.1895 A
Power:	22.66 W
Power Factor:	0.996
Frequency:	60 Hz
Current THD:	7.93 %

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
24.8 °C	120.1 VAC	0.1895 A	22.66 W	0.996	60 Hz	7.93 %

Summary of Results

Spacing Criteria

0-180: 0.43

90-270: 0.43

Total Lumen Output:

2260 Lumens

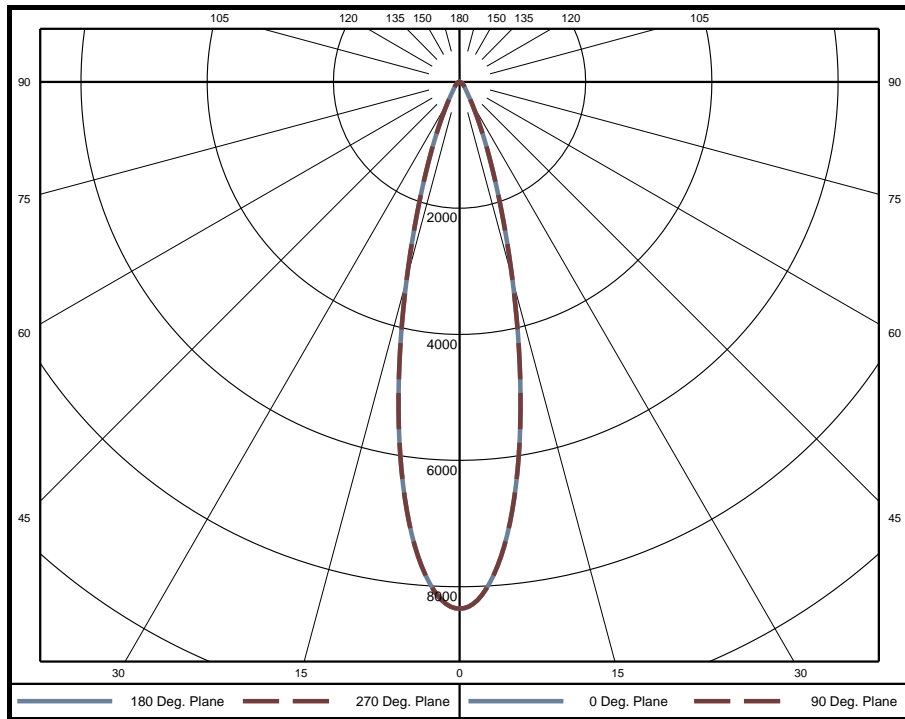
Luminaire Efficacy:

99.7 lm/w

Maximum Candela:

8348 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	190.0	8.4%	60-65	21.0	0.9%	120-125	0	0.0%
5-10	465.5	20.6%	65-70	15.5	0.7%	125-130	0	0.0%
10-15	508.8	22.5%	70-75	10.6	0.5%	130-135	0	0.0%
15-20	381.4	16.9%	75-80	6.7	0.3%	135-140	0	0.0%
20-25	237.2	10.5%	80-85	3.3	0.1%	140-145	0	0.0%
25-30	136.8	6.1%	85-90	0.8	0.0%	145-150	0	0.0%
30-35	82.7	3.7%	90-95	0	0.0%	150-155	0	0.0%
35-40	57.3	2.5%	95-100	0	0.0%	155-160	0	0.0%
40-45	45.4	2.0%	100-105	0	0.0%	160-165	0	0.0%
45-50	38.4	1.7%	105-110	0	0.0%	165-170	0	0.0%
50-55	32.4	1.4%	110-115	0	0.0%	170-175	0	0.0%
55-60	26.6	1.2%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	2060	91.1%
0-60	2203	97.5%
0-90	2260	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	8348	8348	8348	8348	8348	8348	8348	8348	8348	8348	8348	8348	8348	8348	8348
	5	7547	7547	7547	7547	7547	7547	7547	7547	7547	7547	7547	7547	7547	7547	7547
	10	5538	5538	5538	5538	5538	5538	5538	5538	5538	5538	5538	5538	5538	5538	5538
	15	3235	3235	3235	3235	3235	3235	3235	3235	3235	3235	3235	3235	3235	3235	3235
	20	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
	25	771	771	771	771	771	771	771	771	771	771	771	771	771	771	771
	30	377	377	377	377	377	377	377	377	377	377	377	377	377	377	377
	35	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212
	40	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142
	45	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107
	50	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84
	55	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66
	60	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	65	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
	70	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	75	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
	80	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	85	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	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)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	544600	544600
	45	9875	9875
	55	7465	7465
	65	5648	5648
	75	4060	4060
	85	2437	2437



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	114	112	109	107	112	110	108	106	106	104	102	102	101	99	98	97	97	95
2	109	105	102	99	107	103	100	98	100	98	95	97	95	93	95	93	92	90
3	105	100	95	92	103	98	94	91	96	92	90	93	91	88	91	89	87	86
4	101	95	90	86	99	94	89	86	92	88	85	90	87	84	88	85	83	82
5	97	90	86	82	96	90	85	82	88	84	81	86	83	80	85	82	80	78
6	94	87	82	78	93	86	81	78	84	80	77	83	80	77	82	79	76	75
7	91	83	78	75	90	83	78	75	81	77	74	80	77	74	79	76	74	72
8	88	80	75	72	87	80	75	72	79	75	72	78	74	71	77	73	71	70
9	85	77	73	69	84	77	72	69	76	72	69	75	72	69	74	71	69	68
10	82	75	70	67	82	74	70	67	74	70	67	73	69	67	72	69	66	65

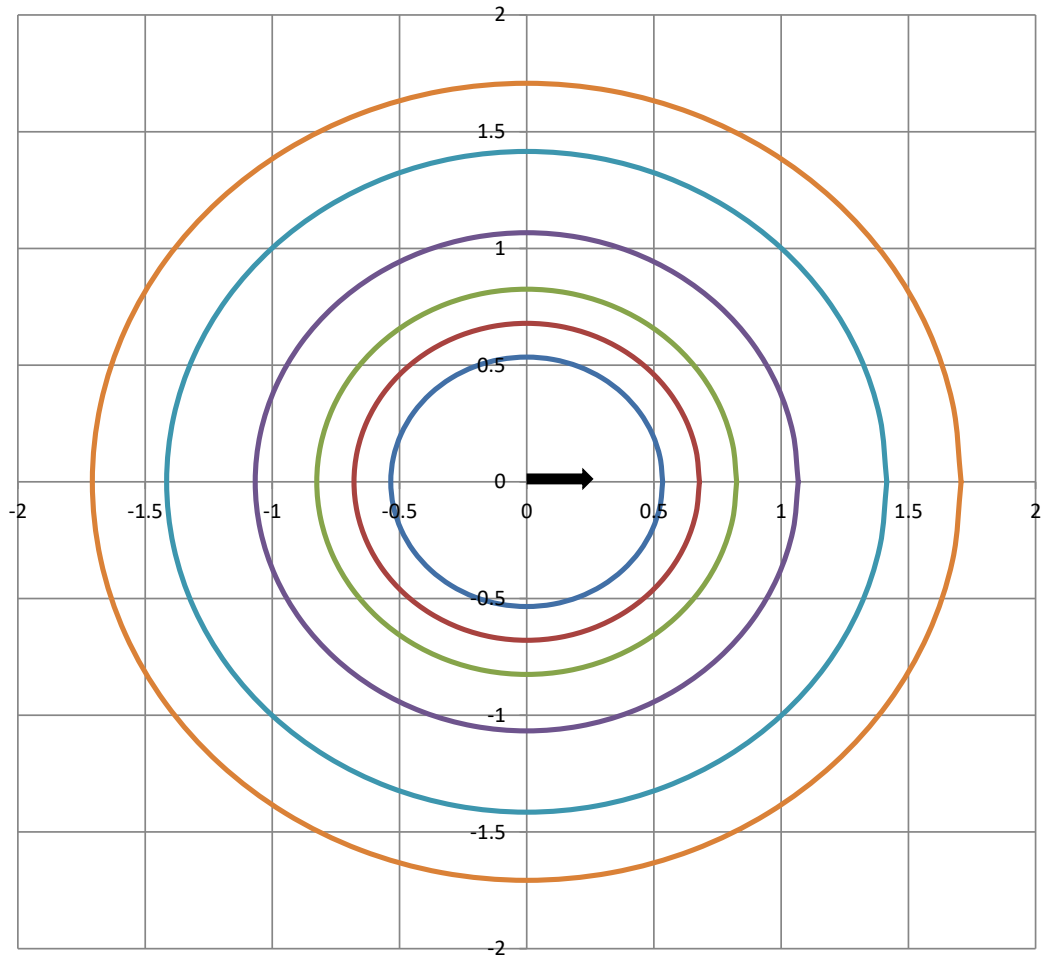
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	8348 Candela
Central Cone Intensity:	8062 Candela
Beam Flux:	954.0 Lumens
Beam Angle (0-180):	25.8 Degrees
Beam Angle (90-270):	25.8 Degrees
Field Angle (0-180):	48.9 Degrees
Field Angle (90-270):	48.9 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		522	1.74
6.00		232	2.60
8.00		130	3.47
10.0		83.5	4.34
12.0		58.0	5.21
14.0		42.6	6.08
16.0		32.6	6.94



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