



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

Prepared For
H E Williams Inc
831 W Fairview Ave
PO Box 837
Carthage, MO 64836-0837
United States

Catalog Number
2DS-L15/835-DIM-UNV-RW-OF-WH-x-xx
Order Number
13257153
Test Number
13257153.16

Test Date

2020-03-12

Prepared By

Jesse Litchfield, Technician

Approved By

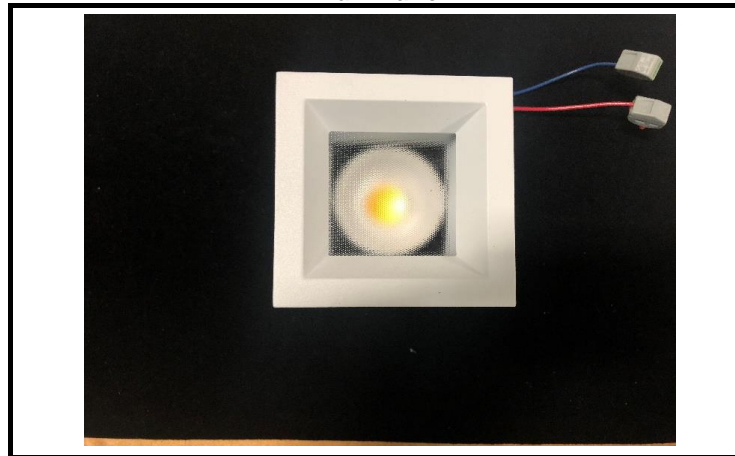
Alexa Lambert, Project Handler

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: Aluminum housing, optics, and trim enclosure
Lamp: One white LED
Mounting: Recessed
Ballast/Driver: One Philips Advance XI025C070V054DSM1 Driver

Luminaire



Luminaire Characteristics

Luminous Length: 2.50 in.
Luminous Width: 2.500 in.
Luminous Height: in.

Summary of Results

Total Luminaire Output:	1614 Lumens
Luminaire Efficacy:	93.3 lm/w
Maximum Candela:	1871 Candela

Test Conditions

Test Temperature:	25.5 °C
Voltage:	120.1 VAC
Current:	0.1452 A
Power:	17.30 W
Power Factor:	0.992
Frequency:	60 Hz
Current THD:	10.9 %

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



Distribution - Goniophotometer

Distribution Test Conditions

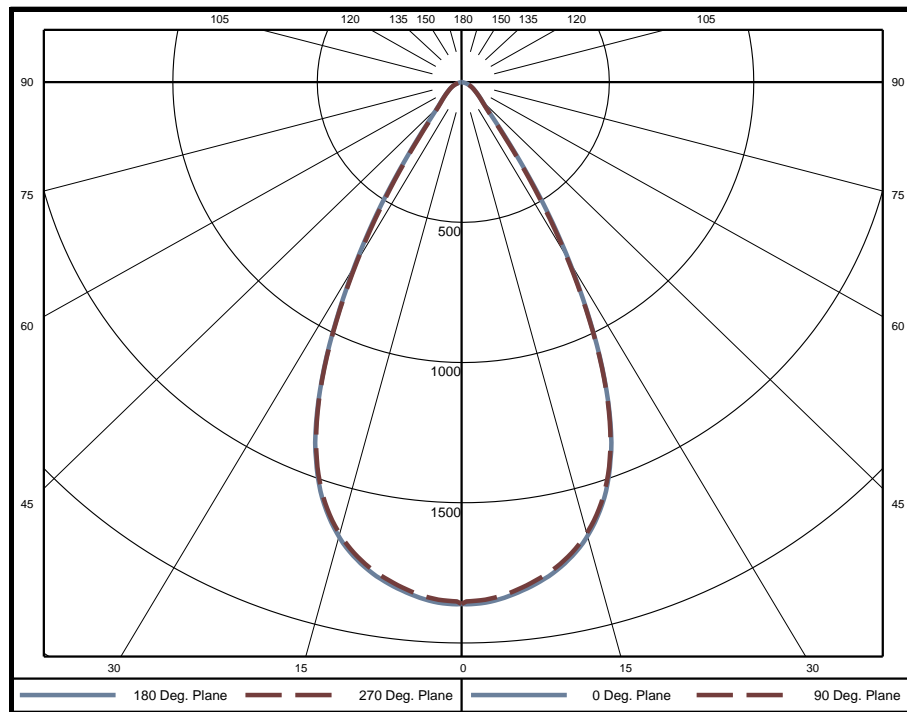
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.5 °C	120.1 VAC	0.1452 A	17.30 W	0.992	60 Hz	10.9 %

Summary of Results

Spacing Criteria
 0-180: 0.88
 90-270: 0.88

Total Lumen Output: 1614 Lumens
Luminaire Efficacy: 93.3 lm/w
Maximum Candela: 1871 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	44.3	2.7%	60-65	18.6	1.2%	120-125	0	0.0%
5-10	129.3	8.0%	65-70	13.5	0.8%	125-130	0	0.0%
10-15	204.6	12.7%	70-75	8.5	0.5%	130-135	0	0.0%
15-20	259.7	16.1%	75-80	3.8	0.2%	135-140	0	0.0%
20-25	277.6	17.2%	80-85	1.6	0.1%	140-145	0	0.0%
25-30	242.2	15.0%	85-90	0.5	0.0%	145-150	0	0.0%
30-35	166.7	10.3%	90-95	0	0.0%	150-155	0	0.0%
35-40	94.2	5.8%	95-100	0	0.0%	155-160	0	0.0%
40-45	55.1	3.4%	100-105	0	0.0%	160-165	0	0.0%
45-50	39.0	2.4%	105-110	0	0.0%	165-170	0	0.0%
50-55	30.5	1.9%	110-115	0	0.0%	170-175	0	0.0%
55-60	24.1	1.5%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1419	87.9%
0-60	1567	97.1%
0-90	1614	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	1861	1861	1861	1861	1861	1861	1861	1861	1861	1861	1861	1861	1861	1861	1861
	5	1840	1848	1840	1832	1830	1832	1840	1848	1840	1848	1840	1832	1830	1832	1840
	10	1779	1787	1779	1771	1768	1771	1779	1787	1779	1787	1779	1771	1768	1771	1779
	15	1666	1676	1670	1663	1657	1663	1670	1676	1666	1676	1670	1663	1657	1663	1670
	20	1465	1480	1484	1474	1460	1474	1484	1480	1465	1480	1484	1474	1460	1474	1484
	25	1126	1163	1196	1162	1124	1162	1196	1163	1126	1163	1196	1162	1124	1162	1196
	30	708	761	818	753	694	753	818	761	708	761	818	753	694	753	818
	35	344	409	465	394	327	394	465	409	344	409	465	394	327	394	465
	40	160	194	250	186	153	186	250	194	160	194	250	186	153	186	250
	45	102	113	139	110	100	110	139	113	102	113	139	110	100	110	139
	50	76	81	88	80	75	80	88	81	76	81	88	80	75	80	88
	55	58	61	62	60	56	60	62	61	58	61	62	60	56	60	62
	60	44	46	44	45	44	45	44	46	44	46	44	45	44	45	44
	65	33	33	30	33	33	33	30	33	33	33	30	33	33	30	33
	70	22	22	20	22	22	22	20	22	22	22	20	22	22	20	22
	75	12	12	11	12	12	12	11	12	12	12	11	12	12	12	11
	80	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	85	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	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)

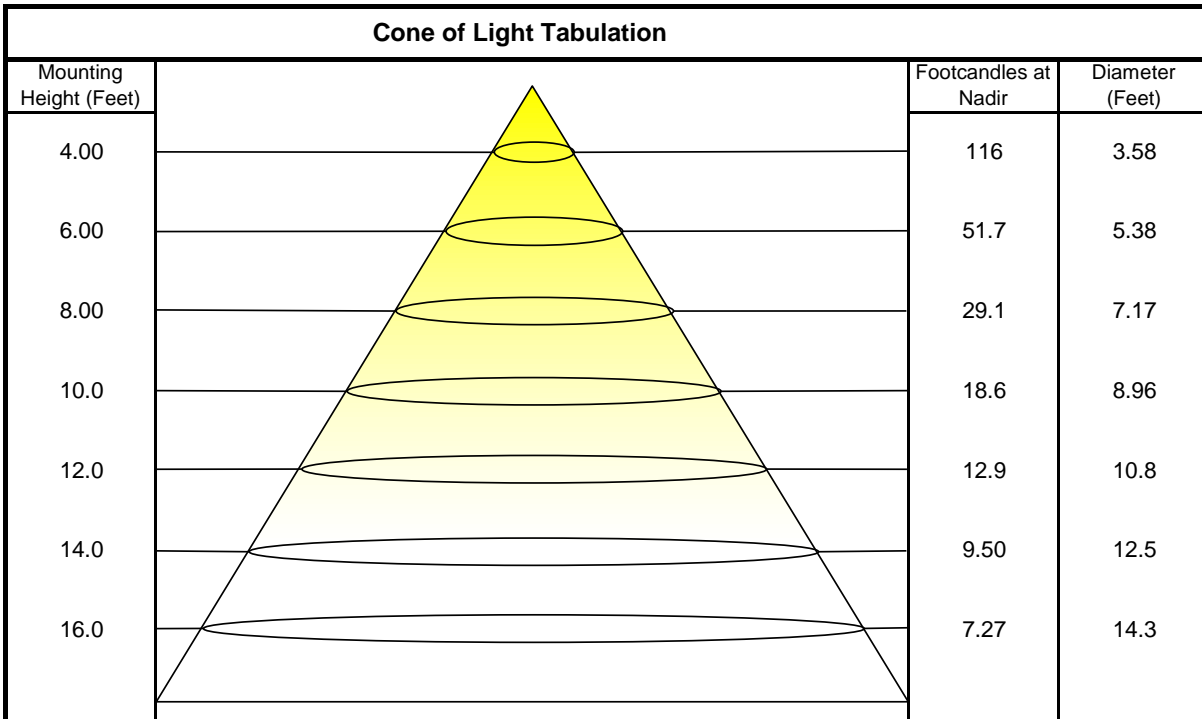
Vertical Angle (Degrees)	0	45	90
	0	461600	461600
	45	35830	48780
	55	24900	26910
	65	19320	17860
	75	11100	10280
	85	5246	5033



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	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87	86
3	102	95	90	86	100	94	89	85	91	87	84	88	85	82	86	83	81	79
4	96	89	83	78	95	87	82	78	85	81	77	83	79	76	81	78	75	74
5	91	83	77	72	90	82	76	72	80	75	71	78	74	71	77	73	70	69
6	87	78	72	67	85	77	71	67	75	70	66	74	69	66	73	69	66	64
7	83	73	67	63	81	72	67	63	71	66	62	70	65	62	69	65	61	60
8	79	69	63	59	77	68	63	59	67	62	58	66	62	58	65	61	58	56
9	75	65	59	55	74	65	59	55	64	59	55	63	58	55	62	58	54	53
10	72	62	56	52	70	61	56	52	60	55	52	60	55	52	59	55	51	50

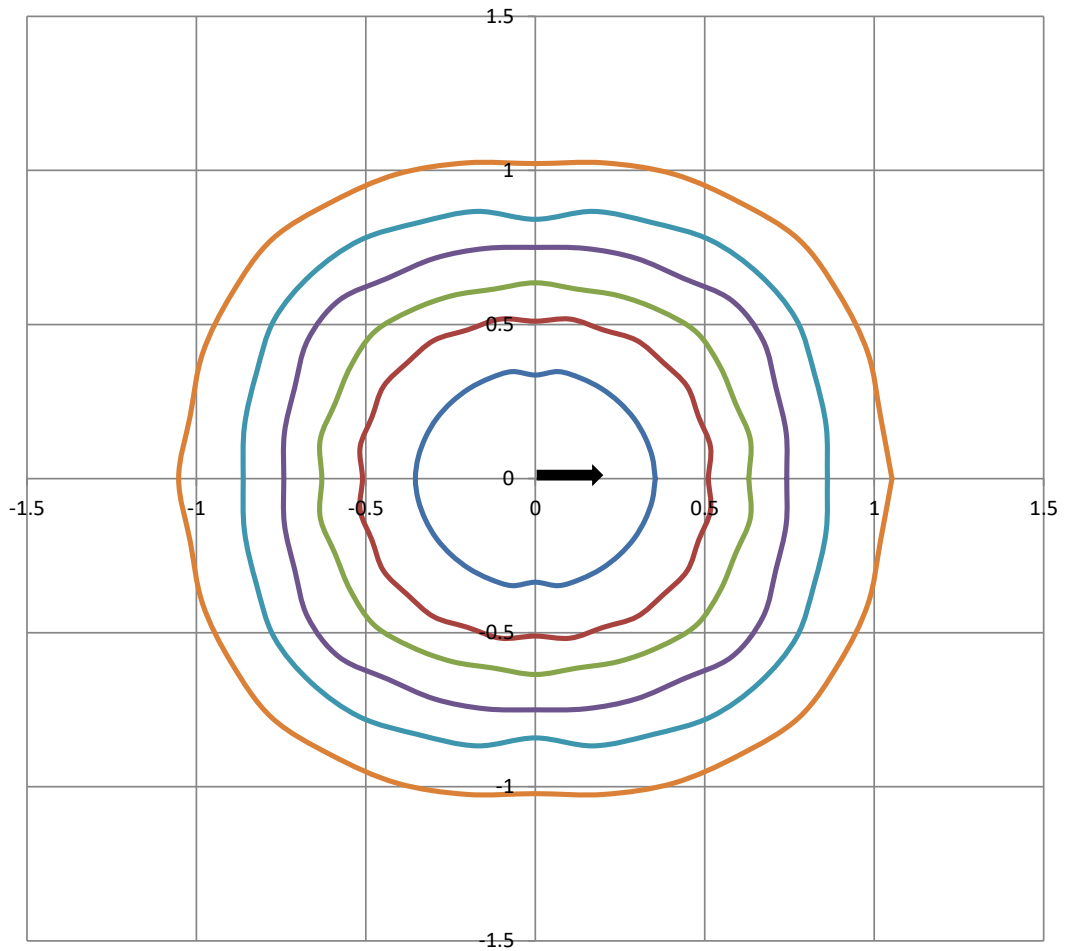
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1861 Candela
Central Cone Intensity:	1854 Candela
Beam Flux:	1064.7 Lumens
Beam Angle (0-180):	54.6 Degrees
Beam Angle (90-270):	54.5 Degrees
Field Angle (0-180):	77.8 Degrees
Field Angle (90-270):	76.9 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

20 fc 10 fc 5 fc 2 fc 1 fc 0.5 fc