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7036 Snowdrift Road  
Allentown, PA 18106  
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## 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**  
**GH-2-L240/840-HE-DIM-UNV**  
Order Number  
13309242  
Test Number  
13309242.04

Test Date

1900-01-00

Prepared By

Jesse Litchfield, Technician

Approved By

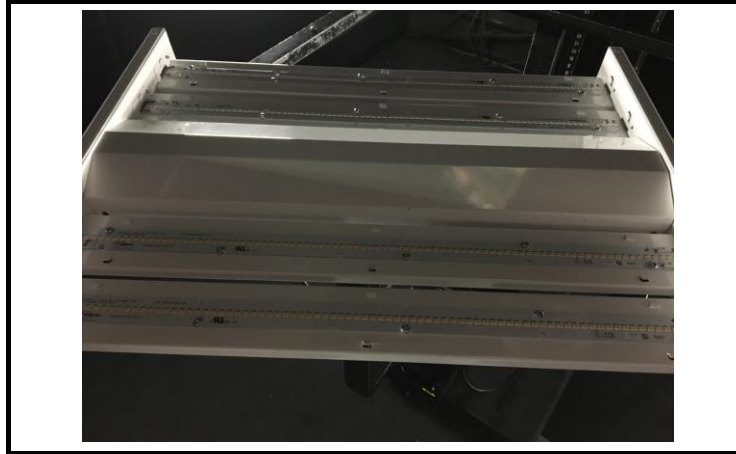
Alexa Lambert, Project Handler

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**Luminaire Description:** Formed white steel housing, no lens enclosures  
**Lamp:** 336 White LEDs  
**Mounting:** Pendant  
**Ballast/Driver:** Two Everline ULT D21CC80UNVPW-C Drivers

**Luminaire**



**Luminaire Characteristics**

Luminous Length: 22.00 in.  
Luminous Width: 17.00 in.  
Luminous Height: 2.50 in.

**Summary of Results**

Total Luminaire Output: 25500 Lumens  
Luminaire Efficacy: 144 lm/w  
Maximum Candela: 8637 Candela

**Test Conditions**

Test Temperature: 25.3 °C  
Voltage: 120.1 VAC  
Current: 1.477 A  
Power: 177.1 W  
Power Factor: 0.998  
Frequency: 60 Hz  
Current THD: 5.25 %

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



## Distribution - Goniophotometer

### Distribution Test Conditions

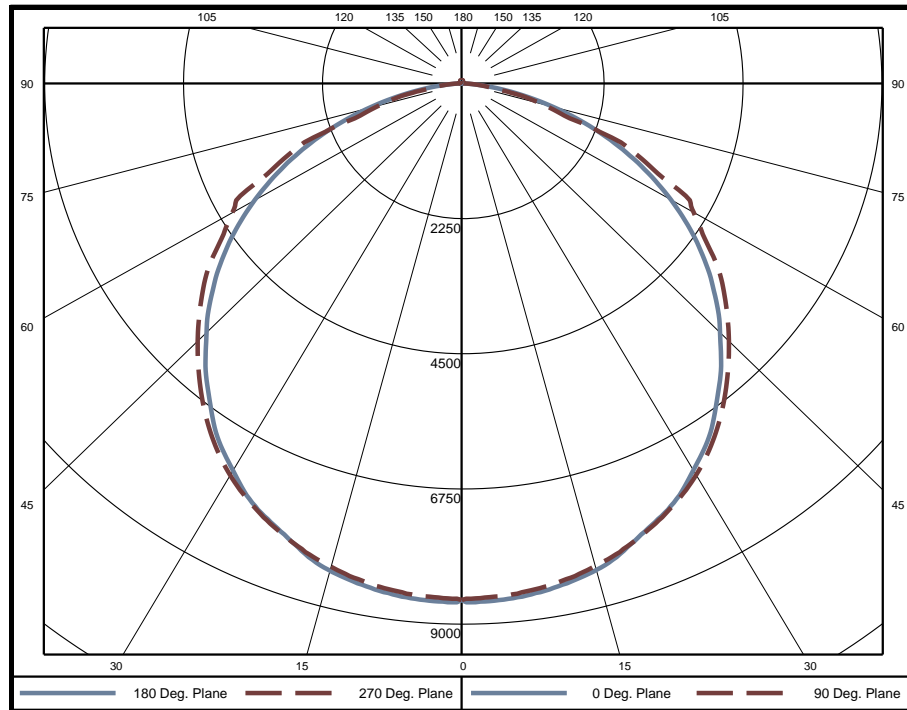
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.3 °C	120.1 VAC	1.477 A	177.1 W	0.998	60 Hz	5.25 %

### Summary of Results

**Spacing Criteria**  
 0-180: 1.28  
 90-270: 1.30

**Total Lumen Output:** 25500 Lumens  
**Luminaire Efficacy:** 144.0 lm/w  
**Maximum Candela:** 8637 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	205	0.8%	60-65	1798	7.1%	120-125	16	0.1%
5-10	610	2.4%	65-70	1460	5.7%	125-130	16	0.1%
10-15	998	3.9%	70-75	1011	4.0%	130-135	15	0.1%
15-20	1357	5.3%	75-80	597	2.3%	135-140	14	0.1%
20-25	1673	6.6%	80-85	265	1.0%	140-145	13	0.1%
25-30	1940	7.6%	85-90	87	0.3%	145-150	12	0.0%
30-35	2142	8.4%	90-95	36	0.1%	150-155	11	0.0%
35-40	2266	8.9%	95-100	27	0.1%	155-160	9	0.0%
40-45	2311	9.1%	100-105	23	0.1%	160-165	7	0.0%
45-50	2291	9.0%	105-110	20	0.1%	165-170	5	0.0%
50-55	2204	8.6%	110-115	18	0.1%	170-175	3	0.0%
55-60	2029	8.0%	115-120	17	0.1%	175-180	1	0.0%

Zone	Lumens	% of Luminaire
0-40	11191	43.9%
0-60	20026	78.5%
0-90	25244	99.0%
90-180	263	1.0%



### 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	8597	8597	8597	8597	8597	8597	8597	8597	8597	8597	8597	8597	8597	8597	8597
	5	8610	8570	8577	8561	8552	8561	8577	8570	8610	8570	8577	8561	8552	8561	8577
	10	8522	8486	8493	8481	8467	8481	8493	8486	8522	8486	8493	8481	8467	8481	8493
	15	8378	8345	8349	8333	8310	8333	8349	8345	8378	8345	8349	8333	8310	8333	8349
	20	8106	8100	8149	8124	8105	8124	8149	8100	8106	8100	8149	8124	8105	8124	8149
	25	7828	7796	7861	7861	7843	7861	7861	7796	7828	7796	7861	7861	7843	7861	7796
	30	7433	7440	7483	7537	7521	7537	7483	7440	7433	7440	7483	7537	7521	7537	7483
	35	6995	6990	7065	7125	7100	7125	7065	6990	6995	6990	7065	7125	7100	7125	7065
	40	6447	6447	6512	6614	6596	6614	6512	6447	6447	6447	6512	6614	6596	6614	6512
	45	5861	5888	5966	6037	6058	6037	5966	5888	5861	5888	5966	6037	6058	6037	5966
	50	5260	5295	5372	5470	5502	5470	5372	5295	5260	5295	5372	5470	5502	5470	5372
	55	4609	4646	4721	4869	4877	4869	4721	4646	4609	4646	4721	4869	4877	4869	4721
	60	3882	3933	4019	4157	4296	4157	4019	3933	3882	3933	4019	4157	4296	4157	4019
	65	3121	3175	3256	3501	3397	3501	3256	3175	3121	3175	3256	3501	3397	3501	3256
	70	2328	2386	2580	2541	2354	2541	2386	2328	2386	2580	2541	2354	2541	2386	2328
	75	1536	1588	1590	1347	1348	1347	1590	1588	1536	1588	1590	1347	1348	1347	1590
	80	821	869	741	716	641	716	741	869	821	869	741	716	641	716	741
	85	260	283	284	285	270	285	284	283	260	283	284	285	270	285	284
	90	9	82	90	82	65	82	90	82	9	82	90	82	65	82	90
	95	19	63	70	58	34	58	70	63	19	63	70	58	34	58	70
	100	27	43	58	52	30	52	58	43	27	43	58	52	30	52	58
	105	28	36	47	47	32	47	47	36	28	36	47	47	32	47	47
	110	30	33	41	40	29	40	41	33	30	33	41	40	29	40	41
	115	32	33	38	36	27	36	38	33	32	33	38	36	27	36	38
	120	33	35	37	35	27	35	37	35	33	35	37	35	27	35	37
	125	35	36	37	35	29	35	37	36	35	36	37	35	29	35	37
	130	37	38	38	37	31	37	38	38	37	38	38	37	31	37	38
	135	37	40	37	38	32	38	37	40	37	40	37	38	32	38	37
	140	37	37	39	40	36	40	39	37	37	37	39	40	36	40	39
	145	29	34	42	42	39	42	42	34	29	34	42	42	39	42	42
	150	33	37	43	45	45	45	43	37	33	37	43	45	45	45	43
	155	37	37	42	48	52	48	42	37	37	37	42	48	52	48	42
	160	33	36	42	48	52	48	42	36	33	36	42	48	52	48	42
	165	32	35	40	47	57	47	40	35	32	35	40	47	57	47	40
	170	32	35	40	41	40	41	40	35	32	35	40	41	40	41	40
	175	34	36	39	37	37	37	39	36	34	36	39	37	37	37	39
	180	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38

### Average Luminance (cd/m<sup>2</sup>)

Horizontal Angle (Degrees)

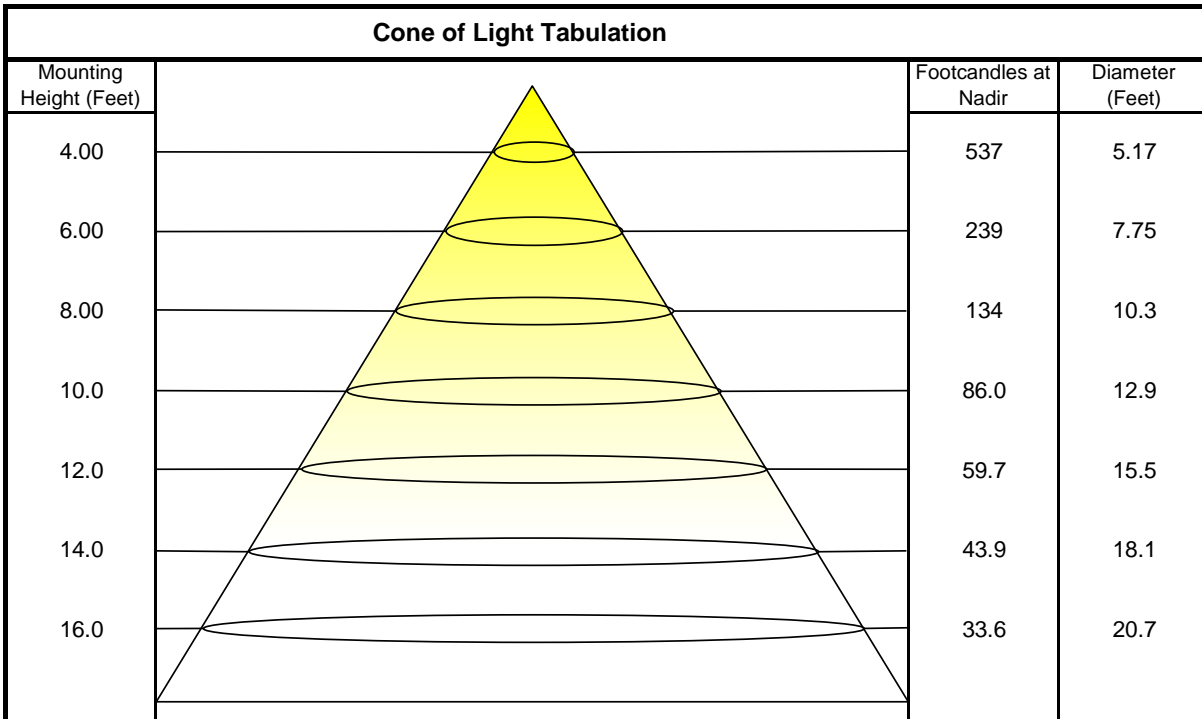
Vertical Angle (Degrees)	0	45	90
	0	35630	35630
	45	30850	30960
	55	28650	29130
	65	24610	25320
	75	17270	13940
	85	5369	4780



### 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	101	101	101	99
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	89	87	85	83
2	99	91	84	78	96	89	82	77	85	80	75	81	77	73	78	75	71	69
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	64	60	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	61	56	52	49
5	76	63	54	47	73	61	53	47	59	52	46	57	51	45	55	49	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	33	28	40	33	28	38	32	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	24

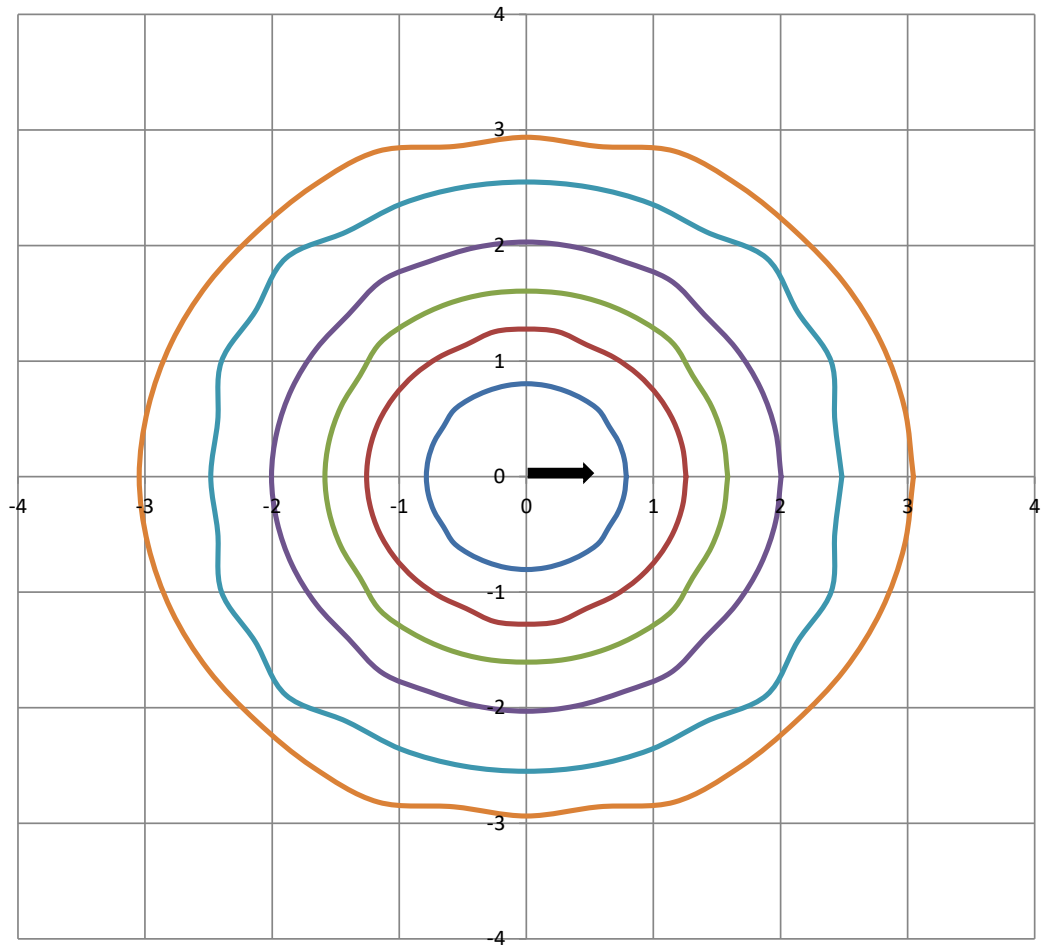
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	8597 Candela
Central Cone Intensity:	8588 Candela
Beam Flux:	19326.4 Lumens
Beam Angle (0-180):	114.3 Degrees
Beam Angle (90-270):	119.9 Degrees
Field Angle (0-180):	159.4 Degrees
Field Angle (90-270):	157.4 Degrees





## ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

50 fc    20 fc    10 fc    5 fc    2 fc    1 fc