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## Indoor Distribution Test Report

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

**Prepared For**  
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**Catalog Number**  
**RP06**  
Order Number  
11199505  
Test Number  
1227104

Test Date  
  
2016-03-31

Prepared By

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Approved By

Zachary Mooney, Senior Engineering Associate

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**Luminaire Description:** Pendant luminaire that can be hung at varying lengths and locations on bus bars within a modular architectural lighting system  
**Lamp:** One white LED array  
**Mounting:** Pendant  
**Ballast/Driver:** LTF / Model# - TA75WA24LED

**Luminaire**



**Luminaire Characteristics**

Luminous Diameter: 2.13 in.  
Luminous Height: 2.375 in.

**Summary of Results**

Total Luminaire Output:	129.6 Lumens
Luminaire Efficacy:	32.6 lm/w
Maximum Candela:	14 Candela

**Test Conditions**

Test Temperature:	25.0 °C
Voltage:	120.0 VAC
Current:	0.03480 A
Power:	3.977 W
Power Factor:	0.950
Frequency:	60 Hz
Current THD:	25.2 %

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
25.0 °C	120.0 VAC	0.03480 A	3.977 W	0.950	60 Hz	25.2 %

### Summary of Results

#### Spacing Criteria

0-180: 1.79

90-270: 1.79

**Total Lumen Output:**

129.6 Lumens

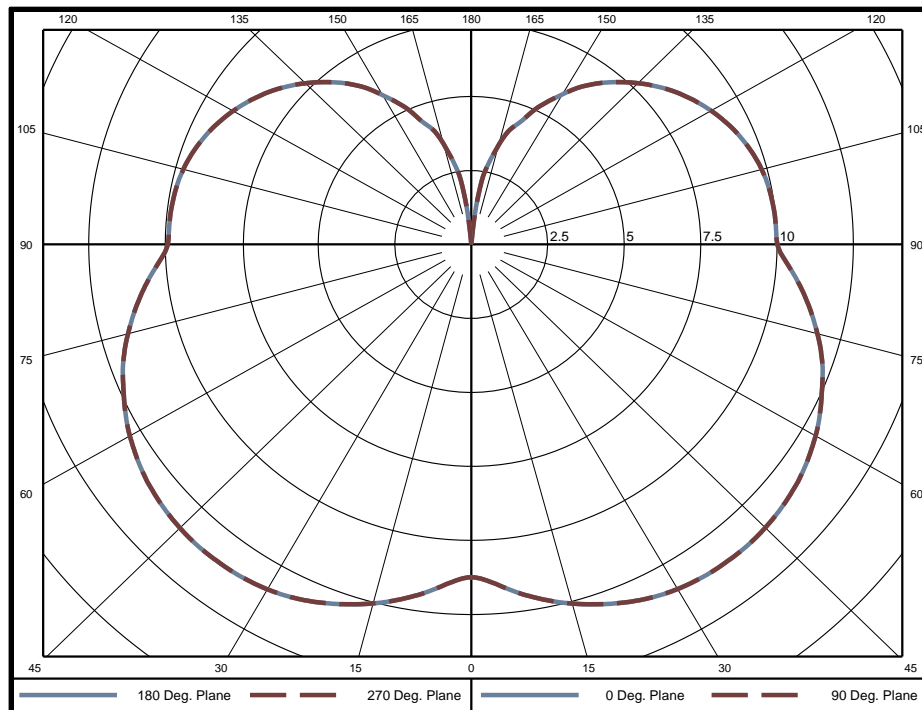
**Luminaire Efficacy:**

32.6 lm/w

**Maximum Candela:**

14 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	0.274	0.2%	60-65	6.203	4.8%	120-125	4.086	3.2%
5-10	0.852	0.7%	65-70	6.260	4.8%	125-130	3.667	2.8%
10-15	1.467	1.1%	70-75	6.232	4.8%	130-135	3.218	2.5%
15-20	2.102	1.6%	75-80	6.090	4.7%	135-140	2.755	2.1%
20-25	2.746	2.1%	80-85	5.865	4.5%	140-145	2.294	1.8%
25-30	3.379	2.6%	85-90	5.575	4.3%	145-150	1.832	1.4%
30-35	3.976	3.1%	90-95	5.440	4.2%	150-155	1.385	1.1%
35-40	4.526	3.5%	95-100	5.385	4.2%	155-160	0.985	0.8%
40-45	5.022	3.9%	100-105	5.267	4.1%	160-165	0.658	0.5%
45-50	5.447	4.2%	105-110	5.071	3.9%	165-170	0.358	0.3%
50-55	5.794	4.5%	110-115	4.800	3.7%	170-175	0.115	0.1%
55-60	6.047	4.7%	115-120	4.469	3.4%	175-180	0.002	0.0%

Zone	Lumens	% of Luminaire
0-40	19	14.9%
0-60	42	32.1%
0-90	78	60.1%
90-180	52	40.0%



**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	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25
	5	11.61	11.61	11.61	11.61	11.61	11.61	11.61	11.61	11.61	11.61	11.61	11.61	11.61	11.61	11.61
	10	12.12	12.12	12.12	12.12	12.12	12.12	12.12	12.12	12.12	12.12	12.12	12.12	12.12	12.12	12.12
	15	12.56	12.56	12.56	12.56	12.56	12.56	12.56	12.56	12.56	12.56	12.56	12.56	12.56	12.56	12.56
	20	12.93	12.93	12.93	12.93	12.93	12.93	12.93	12.93	12.93	12.93	12.93	12.93	12.93	12.93	12.93
	25	13.23	13.23	13.23	13.23	13.23	13.23	13.23	13.23	13.23	13.23	13.23	13.23	13.23	13.23	13.23
	30	13.44	13.44	13.44	13.44	13.44	13.44	13.44	13.44	13.44	13.44	13.44	13.44	13.44	13.44	13.44
	35	13.54	13.54	13.54	13.54	13.54	13.54	13.54	13.54	13.54	13.54	13.54	13.54	13.54	13.54	13.54
	40	13.57	13.57	13.57	13.57	13.57	13.57	13.57	13.57	13.57	13.57	13.57	13.57	13.57	13.57	13.57
	45	13.53	13.53	13.53	13.53	13.53	13.53	13.53	13.53	13.53	13.53	13.53	13.53	13.53	13.53	13.53
	50	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41	13.41
	55	13.22	13.22	13.22	13.22	13.22	13.22	13.22	13.22	13.22	13.22	13.22	13.22	13.22	13.22	13.22
	60	12.94	12.94	12.94	12.94	12.94	12.94	12.94	12.94	12.94	12.94	12.94	12.94	12.94	12.94	12.94
	65	12.56	12.56	12.56	12.56	12.56	12.56	12.56	12.56	12.56	12.56	12.56	12.56	12.56	12.56	12.56
	70	12.17	12.17	12.17	12.17	12.17	12.17	12.17	12.17	12.17	12.17	12.17	12.17	12.17	12.17	12.17
	75	11.66	11.66	11.66	11.66	11.66	11.66	11.66	11.66	11.66	11.66	11.66	11.66	11.66	11.66	11.66
	80	11.09	11.09	11.09	11.09	11.09	11.09	11.09	11.09	11.09	11.09	11.09	11.09	11.09	11.09	11.09
	85	10.48	10.48	10.48	10.48	10.48	10.48	10.48	10.48	10.48	10.48	10.48	10.48	10.48	10.48	10.48
	90	9.96	9.96	9.96	9.96	9.96	9.96	9.96	9.96	9.96	9.96	9.96	9.96	9.96	9.96	9.96
	95	9.93	9.93	9.93	9.93	9.93	9.93	9.93	9.93	9.93	9.93	9.93	9.93	9.93	9.93	9.93
	100	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89
	105	9.79	9.79	9.79	9.79	9.79	9.79	9.79	9.79	9.79	9.79	9.79	9.79	9.79	9.79	9.79
	110	9.60	9.60	9.60	9.60	9.60	9.60	9.60	9.60	9.60	9.60	9.60	9.60	9.60	9.60	9.60
	115	9.35	9.35	9.35	9.35	9.35	9.35	9.35	9.35	9.35	9.35	9.35	9.35	9.35	9.35	9.35
	120	9.02	9.02	9.02	9.02	9.02	9.02	9.02	9.02	9.02	9.02	9.02	9.02	9.02	9.02	9.02
	125	8.64	8.64	8.64	8.64	8.64	8.64	8.64	8.64	8.64	8.64	8.64	8.64	8.64	8.64	8.64
	130	8.21	8.21	8.21	8.21	8.21	8.21	8.21	8.21	8.21	8.21	8.21	8.21	8.21	8.21	8.21
	135	7.70	7.70	7.70	7.70	7.70	7.70	7.70	7.70	7.70	7.70	7.70	7.70	7.70	7.70	7.70
	140	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16
	145	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56
	150	5.83	5.83	5.83	5.83	5.83	5.83	5.83	5.83	5.83	5.83	5.83	5.83	5.83	5.83	5.83
	155	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10
	160	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31
	165	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
	170	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48
	175	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16
	180	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06

**Average Luminance (cd/m<sup>2</sup>)**  
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	4916	4916
	45	#NUM!	#NUM!
	55	#NUM!	#NUM!
	65	#NUM!	#NUM!
	75	#NUM!	#NUM!
	85	#NUM!	#NUM!



### Utilization of Lumens - 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 Lumens delivered to the task surface **																	
0	142	142	142	142	133	133	133	133	115	115	115	99	99	99	85	85	85	78
1	124	116	109	102	115	108	101	95	93	88	83	79	75	71	66	63	60	54
2	111	98	88	79	102	91	82	74	78	71	64	66	60	55	55	50	46	41
3	100	84	73	63	92	78	68	59	67	59	52	56	50	44	47	42	37	32
4	90	74	61	52	83	68	57	49	58	49	42	49	42	36	41	35	30	26
5	82	65	52	43	76	60	49	41	52	43	36	44	36	31	36	30	26	21
6	76	58	46	37	70	54	43	35	46	37	30	39	32	26	32	26	22	18
7	70	52	40	32	64	48	37	30	41	33	26	35	28	23	29	23	19	15
8	64	47	35	28	60	44	33	26	38	29	23	32	25	20	27	21	17	13
9	60	42	32	24	55	40	30	23	34	26	20	29	22	17	25	19	15	12
10	56	39	28	22	52	36	27	20	31	23	18	27	20	16	23	17	13	11

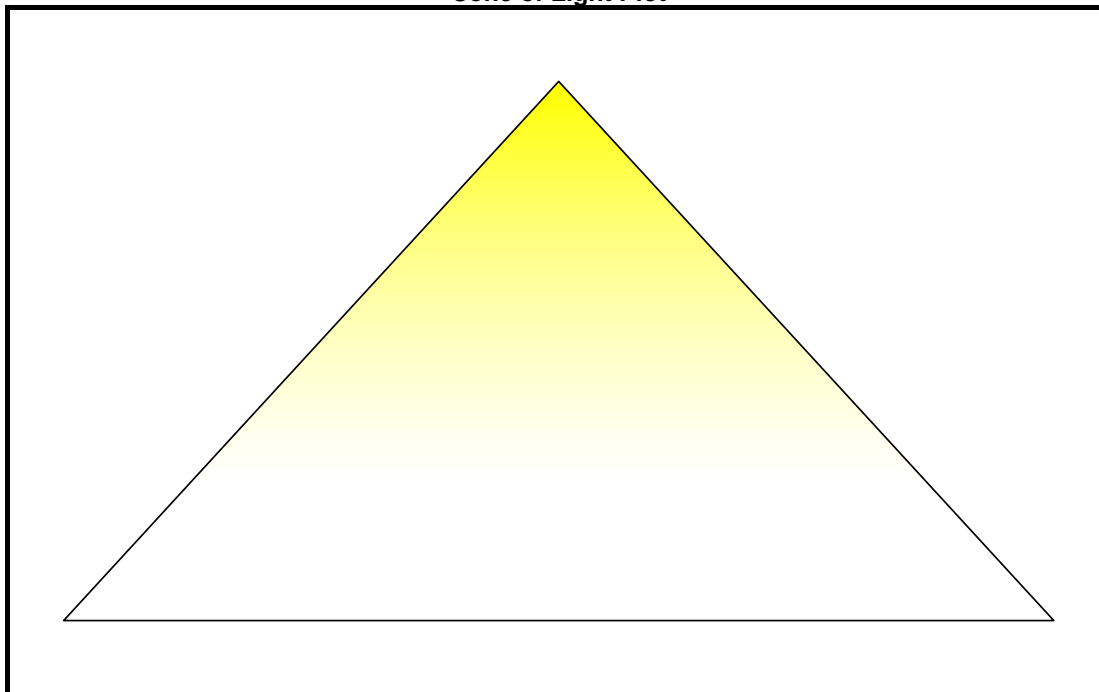
### Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	0.703	7.15
6.00	0.312	10.7
8.00	0.176	14.3
10.0	0.112	17.9
12.0	0.0781	21.5
14.0	0.0574	25.0
16.0	0.0439	28.6

### Beam and Field Information

CIE Type:	Semi-Direct
Center Beam Intensity:	11.25 Candela
Central Cone Intensity:	11 Candela
Beam Flux:	126.6 Lumens
Beam Angle (0-180):	302.8 Degrees
Beam Angle (90-270):	302.8 Degrees
Field Angle (0-180):	346.8 Degrees
Field Angle (90-270):	346.8 Degrees

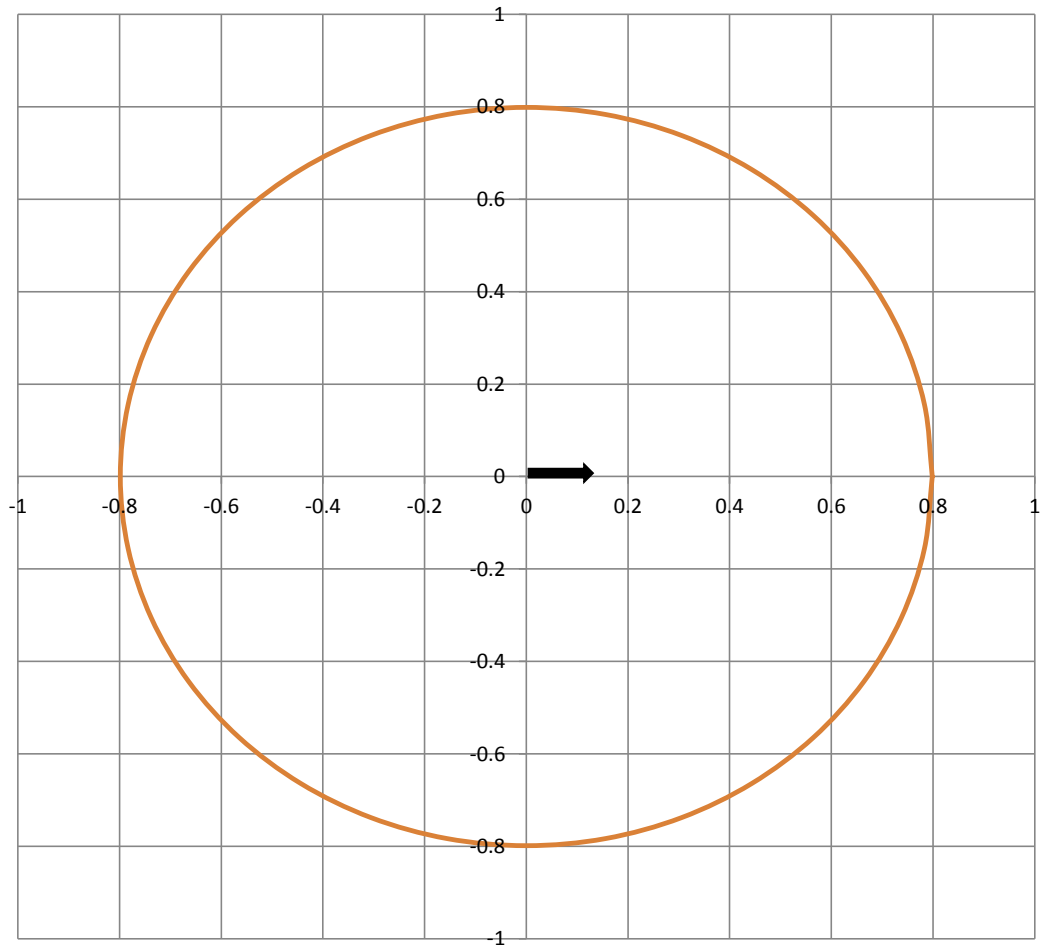
### Cone of Light Plot





## 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