



UL LLC
1075 W Lambert Rd Suite B
Brea, CA 92821

Indoor Distribution Test Report

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

Prepared For
SONNEMAN - A WAY OF LIGHT

NICOLAS CARMICHAEL
106 PIERCES RD
NEWBURGH, NY 12550-9369
United States

Catalog Number
CST.2930.01

Order Number
11281216
Test Number
1267888

Test Date

2016-08-05

Prepared By

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Approved By

Eric Gaudreau, Senior Engineering Associate

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Cylinder formed polished grey aluminum housing with decorative glass lens
Lamp: White LEDs
Mounting: Pendant
Ballast/Driver: One (1) L.T.F TA75WA24LED-0000

Luminaire



Luminaire Characteristics

Luminous Diameter: 0.50 in.
Luminous Height: 8.7500 in.

Summary of Results

Total Luminaire Output:	44.53 Lumens
Luminaire Efficacy:	8.1 lm/w
Maximum Candela:	17 Candela

Test Conditions

Test Temperature:	24.5 °C
Voltage:	120.0 VAC
Current:	0.04710 A
Power:	5.468 W
Power Factor:	0.966
Frequency:	60 Hz
Current THD:	23.6 %

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
24.5 °C	120.0 VAC	0.04710 A	5.468 W	0.966	60 Hz	23.6 %

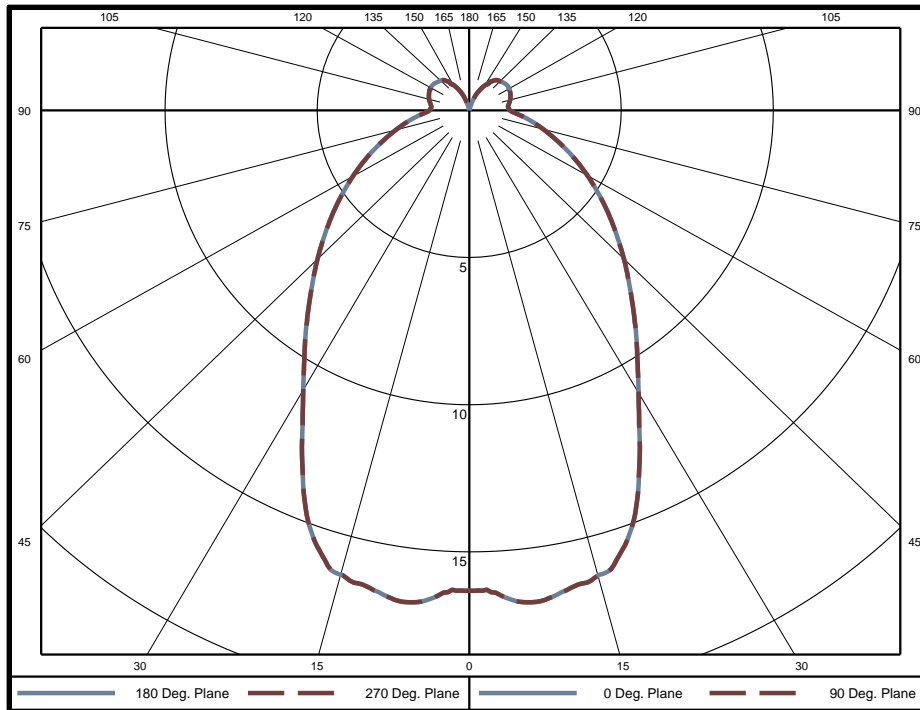
Summary of Results

Spacing Criteria
 0-180: 1.06
 90-270: 1.06

Total Lumen Output:
Luminaire Efficacy:
Maximum Candela:

44.53 Lumens
 8.1 lm/w
 17 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	0.395	0.9%	60-65	1.997	4.5%	120-125	0.695	1.6%
5-10	1.201	2.7%	65-70	1.727	3.9%	125-130	0.644	1.4%
10-15	1.959	4.4%	70-75	1.460	3.3%	130-135	0.579	1.3%
15-20	2.628	5.9%	75-80	1.218	2.7%	135-140	0.511	1.1%
20-25	2.994	6.7%	80-85	0.992	2.2%	140-145	0.422	0.9%
25-30	3.048	6.8%	85-90	0.792	1.8%	145-150	0.308	0.7%
30-35	3.019	6.8%	90-95	0.709	1.6%	150-155	0.210	0.5%
35-40	2.958	6.6%	95-100	0.700	1.6%	155-160	0.123	0.3%
40-45	2.844	6.4%	100-105	0.723	1.6%	160-165	0.046	0.1%
45-50	2.688	6.0%	105-110	0.737	1.7%	165-170	0.004	0.0%
50-55	2.488	5.6%	110-115	0.737	1.7%	170-175	0	0.0%
55-60	2.254	5.1%	115-120	0.722	1.6%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	18	40.9%
0-60	28	63.9%
0-90	37	82.3%
90-180	8	17.7%



Candela Tabulation
Horizontal 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	16.31	16.31	16.31	16.31	16.31	16.31	16.31	16.31	16.31	16.31	16.31	16.31	16.31	16.31	16.31	16.31
5	16.71	16.71	16.71	16.71	16.71	16.71	16.71	16.71	16.71	16.71	16.71	16.71	16.71	16.71	16.71	16.71
10	16.69	16.69	16.69	16.69	16.69	16.69	16.69	16.69	16.69	16.69	16.69	16.69	16.69	16.69	16.69	16.69
15	16.34	16.34	16.34	16.34	16.34	16.34	16.34	16.34	16.34	16.34	16.34	16.34	16.34	16.34	16.34	16.34
20	15.31	15.31	15.31	15.31	15.31	15.31	15.31	15.31	15.31	15.31	15.31	15.31	15.31	15.31	15.31	15.31
25	13.18	13.18	13.18	13.18	13.18	13.18	13.18	13.18	13.18	13.18	13.18	13.18	13.18	13.18	13.18	13.18
30	11.07	11.07	11.07	11.07	11.07	11.07	11.07	11.07	11.07	11.07	11.07	11.07	11.07	11.07	11.07	11.07
35	9.54	9.54	9.54	9.54	9.54	9.54	9.54	9.54	9.54	9.54	9.54	9.54	9.54	9.54	9.54	9.54
40	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.25
45	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	7.16
50	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17
55	5.29	5.29	5.29	5.29	5.29	5.29	5.29	5.29	5.29	5.29	5.29	5.29	5.29	5.29	5.29	5.29
60	4.48	4.48	4.48	4.48	4.48	4.48	4.48	4.48	4.48	4.48	4.48	4.48	4.48	4.48	4.48	4.48
65	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
70	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09
75	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52
80	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04
85	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61
90	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
95	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27
100	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32
105	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38
110	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43
115	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47
120	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49
125	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
130	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46
135	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41
140	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34
145	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
150	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
155	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
160	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43
165	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Luminance (cd/m²)
Horizontal Angle (Degrees)

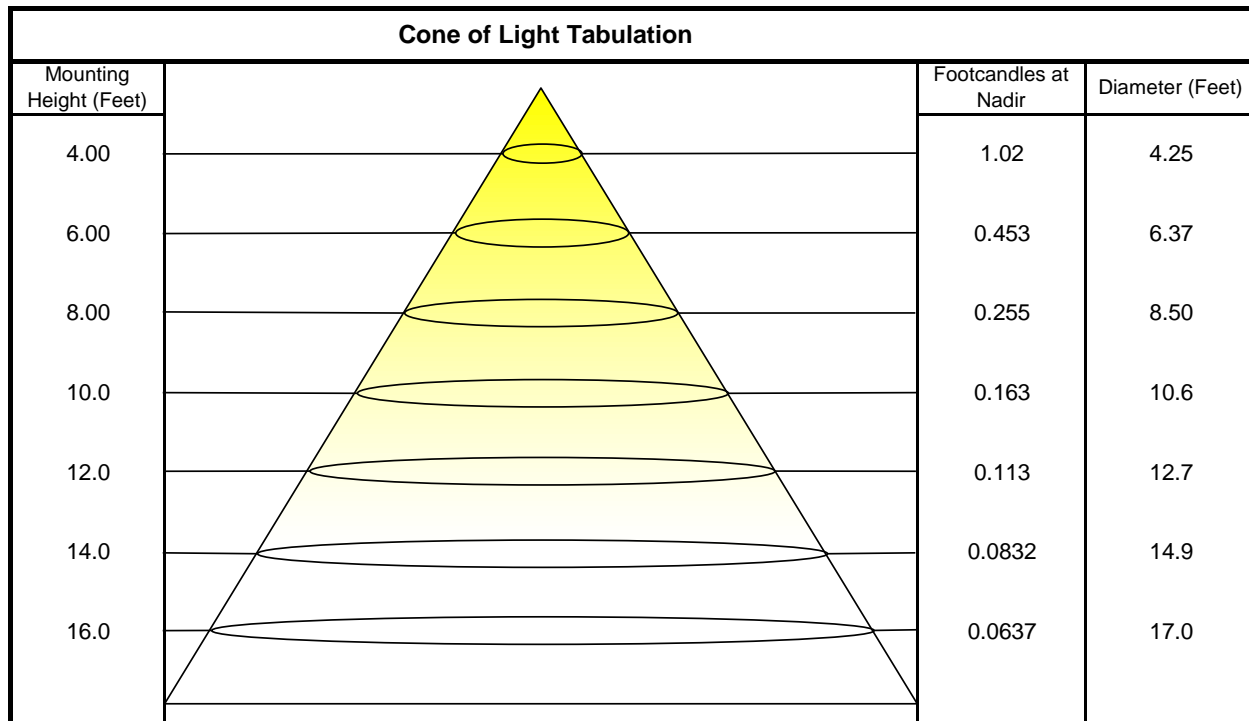
	0	45	90
0	128800	128800	128800
45	3402	3402	3402
55	2198	2198	2198
65	1423	1423	1423
75	906	906	906
85	567	567	567



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	51	51	51	51	49	49	49	49	45	45	45	42	42	42	38	38	38	37
1	46	44	42	41	44	42	41	39	39	38	36	36	35	34	33	32	32	30
2	42	39	36	33	40	37	35	32	34	32	30	32	30	28	29	28	27	25
3	39	34	31	28	37	33	30	27	31	28	26	28	26	24	26	24	23	22
4	36	31	27	24	34	29	26	23	27	25	22	25	23	21	24	22	20	19
5	33	27	24	21	31	27	23	20	25	22	19	23	21	19	21	19	18	17
6	31	25	21	18	29	24	21	18	22	19	17	21	18	17	20	17	16	15
7	28	23	19	16	27	22	19	16	21	18	15	19	17	15	18	16	14	13
8	27	21	17	15	25	20	17	14	19	16	14	18	15	13	17	15	13	12
9	25	19	16	13	24	19	15	13	18	15	13	17	14	12	16	13	12	11
10	23	18	14	12	22	17	14	12	16	14	12	15	13	11	15	12	11	10

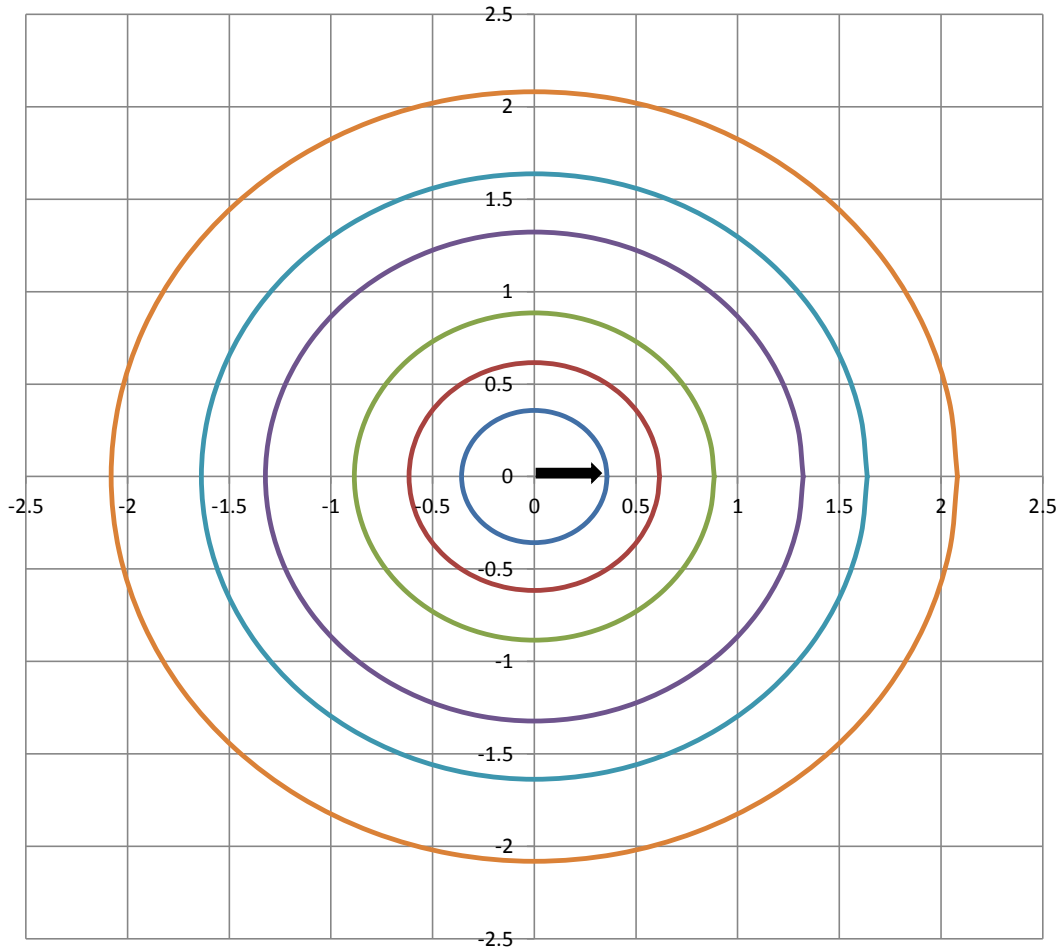
Beam and Field Information	
CIE Type:	Semi-Direct
Center Beam Intensity:	16.31 Candela
Central Cone Intensity:	16 Candela
Beam Flux:	18.4 Lumens
Beam Angle (0-180):	80.8 Degrees
Beam Angle (90-270):	80.8 Degrees
Field Angle (0-180):	169.6 Degrees
Field Angle (90-270):	169.6 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

