



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
Jesco Lighting Group LLC

15 Harbor Park Dr
Port Washington, NY 11050
United States

Catalog Number
RLH-4320N-3590

Order Number

11642482

Test Number

11642482.06

Test Date

2017-02-24

Prepared By

Derek Smarr, Technician

Approved By

Tiffany Hamm, 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: Formed steel housing, formed aluminum heatsink, white plastic internal reflector, frosted plastic lens enclosure, semi-specular external reflector
Lamp: One white LED
Mounting: Recessed
Ballast/Driver: One ERP ESM030W-0550-42

Luminaire



Luminaire Characteristics

Luminous Diameter: 4.50 in.

Summary of Results

Total Luminaire Output:	1721 Lumens
Luminaire Efficacy:	77.1 lm/w
Maximum Candela:	1984 Candela

Test Conditions

Test Temperature:	24.8 °C
Voltage:	120.0 VAC
Current:	0.1906 A
Power:	22.32 W
Power Factor:	0.976
Frequency:	60 Hz
Current THD:	18.3 %

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



Distribution - Goniophotometer

Distribution Test Conditions

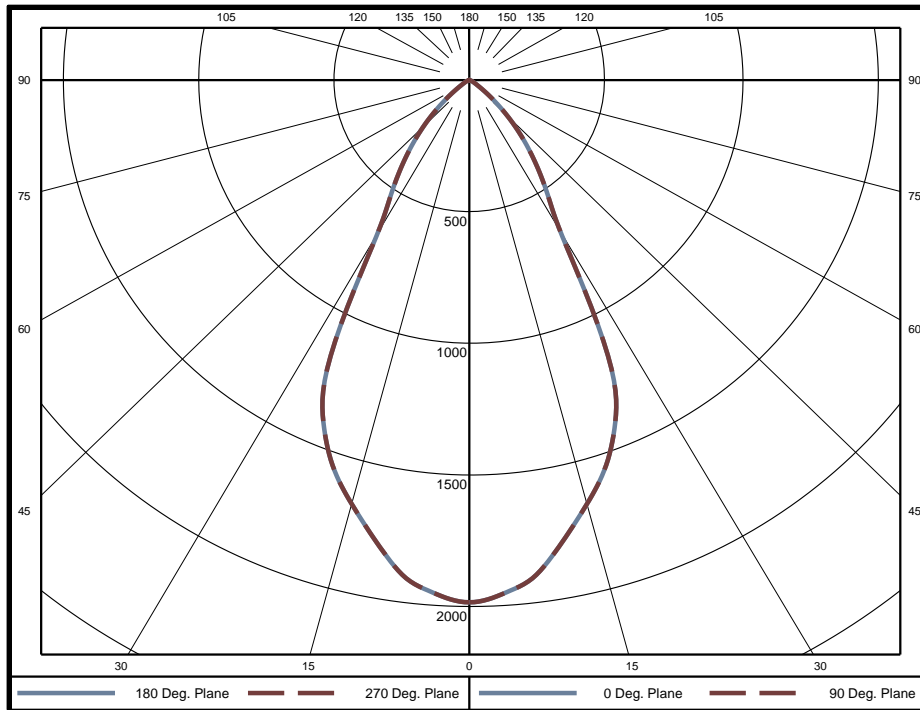
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.8 °C	120.0 VAC	0.1906 A	22.32 W	0.976	60 Hz	18.3 %

Summary of Results

Spacing Criteria
 0-180: 0.90
 90-270: 0.90

Total Lumen Output: 1721 Lumens
Luminaire Efficacy: 77.1 lm/w
Maximum Candela: 1984 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	46.8	2.7%	60-65	8.6	0.5%	120-125	0	0.0%
5-10	134.7	7.8%	65-70	5.0	0.3%	125-130	0	0.0%
10-15	206.3	12.0%	70-75	2.9	0.2%	130-135	0	0.0%
15-20	262.2	15.2%	75-80	1.5	0.1%	135-140	0	0.0%
20-25	292.8	17.0%	80-85	0.7	0.0%	140-145	0	0.0%
25-30	244.1	14.2%	85-90	0.2	0.0%	145-150	0	0.0%
30-35	165.2	9.6%	90-95	0	0.0%	150-155	0	0.0%
35-40	135.0	7.8%	95-100	0	0.0%	155-160	0	0.0%
40-45	101.7	5.9%	100-105	0	0.0%	160-165	0	0.0%
45-50	64.8	3.8%	105-110	0	0.0%	165-170	0	0.0%
50-55	32.8	1.9%	110-115	0	0.0%	170-175	0	0.0%
55-60	15.3	0.9%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1487	86.4%
0-60	1702	98.9%
0-90	1721	100.0%
90-180	0	0.0%



Candela Tabulation
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	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	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984
5	1939	1939	1939	1939	1939	1939	1939	1939	1939	1939	1939	1939	1939	1939	1939	1939
10	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820	1820
15	1669	1669	1669	1669	1669	1669	1669	1669	1669	1669	1669	1669	1669	1669	1669	1669
20	1510	1510	1510	1510	1510	1510	1510	1510	1510	1510	1510	1510	1510	1510	1510	1510
25	1261	1261	1261	1261	1261	1261	1261	1261	1261	1261	1261	1261	1261	1261	1261	1261
30	684	684	684	684	684	684	684	684	684	684	684	684	684	684	684	684
35	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
40	338	338	338	338	338	338	338	338	338	338	338	338	338	338	338	338
45	215	215	215	215	215	215	215	215	215	215	215	215	215	215	215	215
50	112	112	112	112	112	112	112	112	112	112	112	112	112	112	112	112
55	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
60	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
65	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
70	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
75	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
80	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
85	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
90	0	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	0
100	0	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	0
110	0	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	0
120	0	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	0
130	0	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	0
140	0	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	0
150	0	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	0
160	0	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	0
170	0	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	0
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

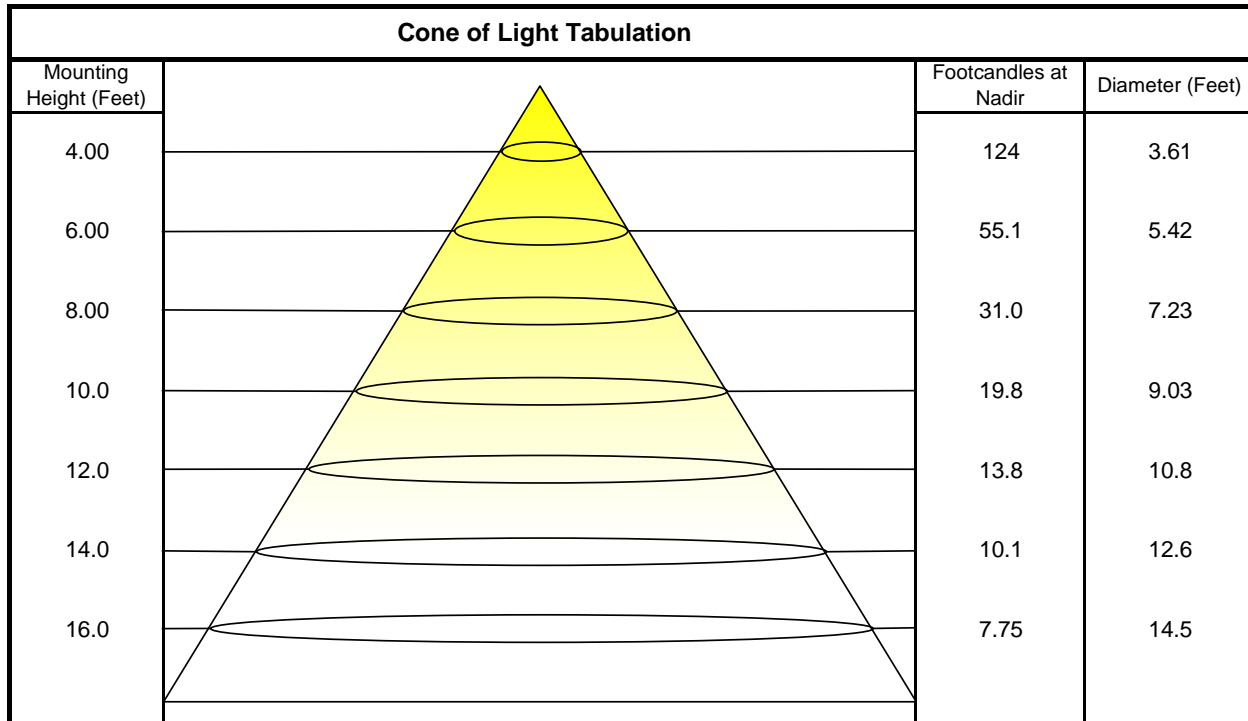
Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
0	193300	193300	193300
45	29670	29670	29670
55	8067	8067	8067
65	3025	3025	3025
75	1501	1501	1501
85	738	738	738



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	2048	2048	2048	2048	2001	2001	2001	2001	1912	1912	1912	1830	1830	1830	1756	1756	1756	1721
1	1949	1900	1856	1816	1907	1863	1823	1787	1793	1761	1732	1729	1704	1680	1670	1650	1632	1601
2	1848	1761	1689	1629	1810	1732	1666	1611	1676	1622	1575	1624	1580	1542	1577	1541	1509	1481
3	1751	1636	1548	1477	1716	1612	1531	1465	1567	1498	1442	1525	1467	1419	1486	1438	1397	1370
4	1659	1524	1426	1351	1627	1504	1413	1343	1467	1389	1327	1432	1365	1311	1400	1343	1296	1269
5	1572	1423	1320	1243	1543	1407	1310	1238	1376	1291	1226	1347	1273	1216	1320	1256	1205	1179
6	1491	1333	1227	1151	1465	1319	1219	1147	1293	1205	1139	1268	1190	1131	1245	1177	1123	1098
7	1415	1251	1145	1070	1392	1239	1139	1067	1217	1127	1061	1196	1116	1056	1177	1105	1050	1025
8	1345	1177	1072	999	1324	1167	1067	997	1148	1057	993	1130	1048	988	1113	1039	984	960
9	1280	1110	1006	936	1261	1102	1002	935	1085	995	931	1070	987	928	1055	980	925	901
10	1220	1050	948	880	1202	1042	944	879	1028	938	876	1014	932	874	1002	926	871	848

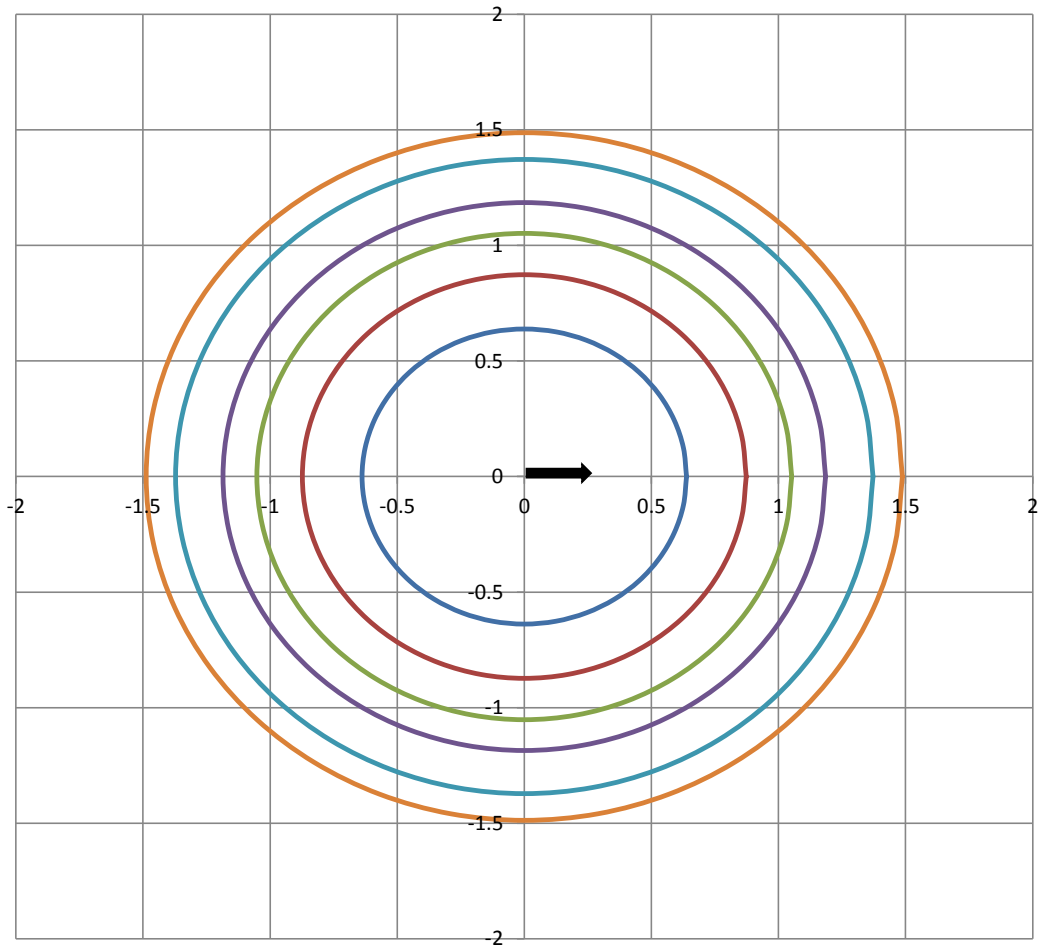
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1984 Candela
Central Cone Intensity:	1966 Candela
Beam Flux:	1071.7 Lumens
Beam Angle (0-180):	54.7 Degrees
Beam Angle (90-270):	54.7 Degrees
Field Angle (0-180):	91.5 Degrees
Field Angle (90-270):	91.5 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

