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ACCREDITED

NVLAP LAB CODE 201042-0

Photometric Test Report

Relevant Standards
IES LM-79-2008
ANSI C78.377-2011, ANSI C82.77-2002
CIE 13.3-1995, CIE 15-2004, IES TM-30-15

Prepared For

Jesco Lighting Group LLC

Vic Nasrudin
15 Harbor Park Dr
Port Washington, NY 11050
United States

Catalog Number

H2L519L3090W

Order Number
11511753
Test Number
11511753.05

Test Date

2016-11-02 - 2016-11-07

Prepared By

Javier Caban

Javier Caban, Technician

Approved By

Timothy Wagner, Project Handler

Table of Contents

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

Testing was performed in a 2-meter integrating sphere using the 4π geometry method.

Absorption correction was employed for Sphere measurement

Luminaire Description: White formed aluminum housing, white formed aluminum reflector, frosted plastic lens enclosure
Lamp: 48 white LEDs
Mounting: Track mount
Ballast/Driver: Unmarked driver

Luminaire

Luminaire Characteristics

Luminous Length:	3.50 in.
Luminous Width:	19.75 in.

Summary of Results

Integrating Sphere

Luminous Flux:	4697 Lumens
Efficacy:	76.5 lm/w
CCT:	3071 K
CRI (Ra):	91.3

Distribution

Total Luminaire Output:	4565 Lumens
Luminaire Efficacy:	74.4 lm/w
Maximum Candela:	1862 Candela

Electrical Data at 120 VAC

Test Temperature:	25.6 °C
Voltage:	120.1 VAC
Current:	0.5161 A
Power:	61.41 W
Power Factor:	0.991
Frequency:	60 Hz
Current THD:	11.6 %

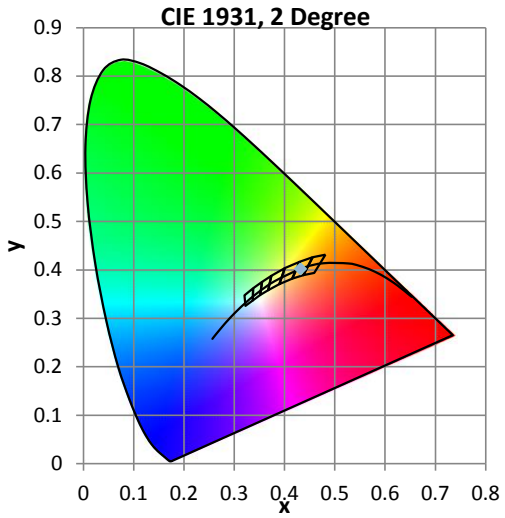
Color Quality - Integrating Sphere

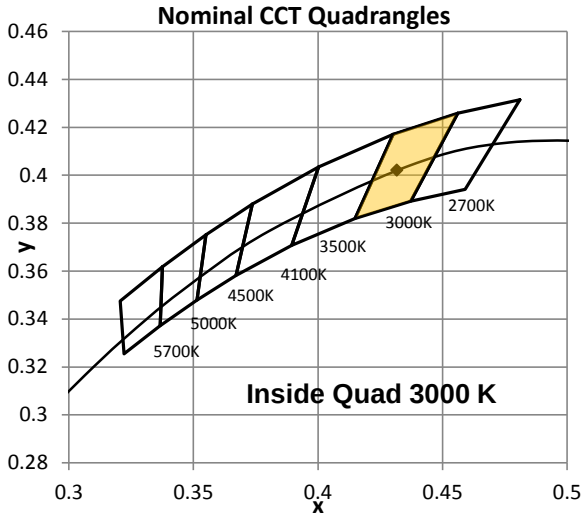
Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.6 °C	120.1 VAC	0.5161 A	61.41 W	0.991	60 Hz	11.6 %

Summary of Results

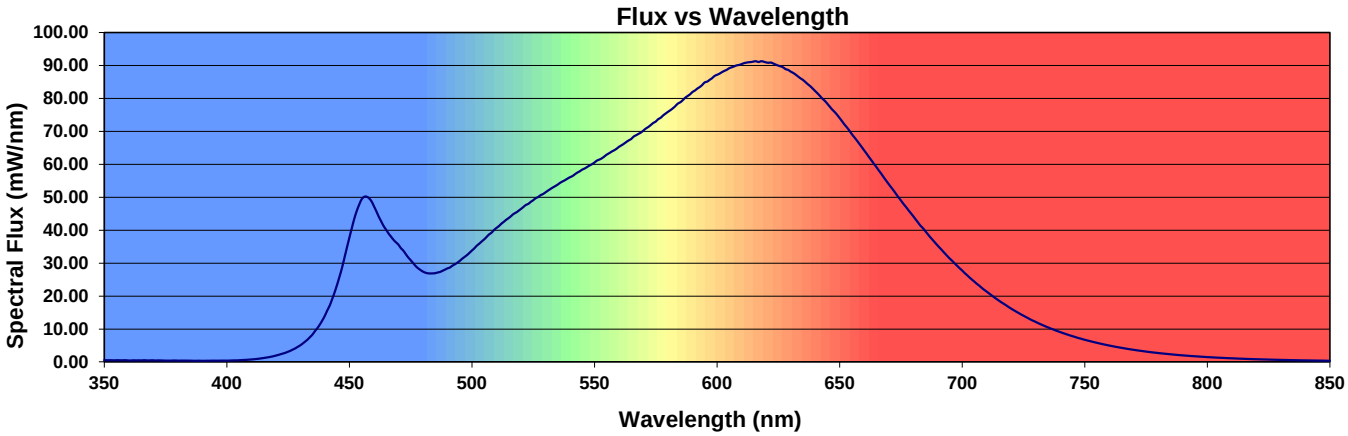
Total Output:	4697 Lumens	**Chromaticity (x):**	0.4317
Efficacy:	76.5 lm/w	**Chromaticity (y):**	0.4021
CCT:	3071 K	**Chromaticity (u'):**	0.2481
CRI (Ra):	91.3	**Chromaticity (v'):**	0.5198
CRI (R9):	53.1	**TM-30 R_f:**	88.2
Peak Wavelength:	616.9 nm	**TM-30 R_g:**	96.5
Dominant Wavelength:	582.5 nm	**Duv:**	0.0001
S/P Ratio:	1.454		





Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
91.3	91.4	96.8	98.1	89.3	90.7	95.4	89.9	78.5	53.1	91.1	89.3	77.9	93.0	99.6



Distribution - Goniophotometer

Distribution Test Conditions

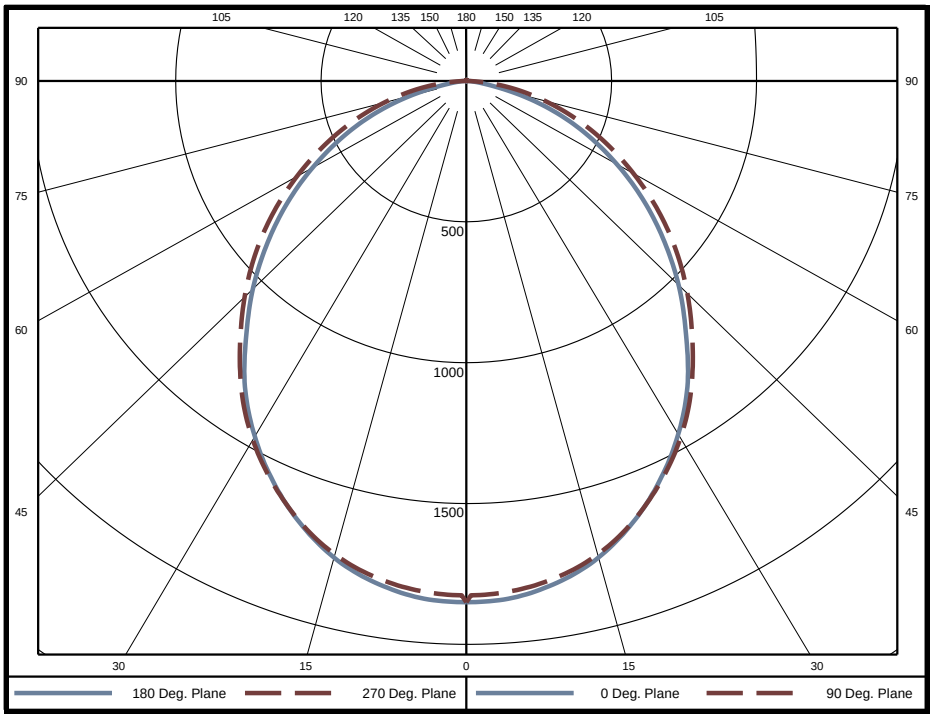
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.7 °C	120.0 VAC	0.5162 A	61.38 W	0.991	60 Hz	11.7 %

Summary of Results

Spacing Criteria
0-180: 1.18
90-270: 1.18

Total Lumen Output: 4565 Lumens
Luminaire Efficacy: 74.4 lm/w
Maximum Candela: 1862 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	44.2	1.0%	60-65	278.4	6.1%	120-125	0	0.0%
5-10	130.7	2.9%	65-70	222.6	4.9%	125-130	0	0.0%
10-15	211.8	4.6%	70-75	161.3	3.5%	130-135	0	0.0%
15-20	283.3	6.2%	75-80	97.4	2.1%	135-140	0	0.0%
20-25	342.0	7.5%	80-85	41.8	0.9%	140-145	0	0.0%
25-30	386.3	8.5%	85-90	8.2	0.2%	145-150	0	0.0%
30-35	414.6	9.1%	90-95	0	0.0%	150-155	0	0.0%
35-40	424.2	9.3%	95-100	0	0.0%	155-160	0	0.0%
40-45	418.5	9.2%	100-105	0	0.0%	160-165	0	0.0%
45-50	400.8	8.8%	105-110	0	0.0%	165-170	0	0.0%
50-55	370.6	8.1%	110-115	0	0.0%	170-175	0	0.0%
55-60	328.7	7.2%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	2237	49.0%
0-60	3756	82.3%
0-90	4565	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	1851	1851	1851	1851	1851	1851	1851	1851	1851	1851	1851	1851	1851	1851	1851	1851
5	1842	1842	1853	1843	1817	1843	1853	1842	1842	1842	1853	1843	1817	1843	1853	1842
10	1808	1808	1821	1814	1789	1814	1821	1808	1808	1808	1821	1814	1789	1814	1821	1808
15	1752	1754	1768	1763	1741	1763	1768	1754	1752	1754	1768	1763	1741	1763	1768	1754
20	1670	1673	1689	1687	1667	1687	1689	1673	1670	1673	1689	1687	1667	1687	1689	1673
25	1570	1573	1591	1593	1575	1593	1591	1573	1570	1573	1591	1593	1575	1593	1591	1573
30	1455	1459	1479	1484	1469	1484	1479	1459	1455	1459	1479	1484	1469	1484	1479	1459
35	1326	1329	1351	1359	1346	1359	1351	1329	1326	1329	1351	1359	1346	1359	1351	1329
40	1176	1184	1207	1218	1209	1218	1207	1184	1176	1184	1207	1218	1209	1218	1207	1184
45	1036	1042	1069	1083	1076	1083	1069	1042	1036	1042	1069	1083	1076	1083	1069	1042
50	891	900	929	947	943	947	929	900	891	900	929	947	943	947	929	900
55	748	758	787	808	806	808	787	758	748	758	787	808	806	808	787	758
60	605	615	645	669	668	669	645	615	605	615	645	669	668	669	645	615
65	467	479	510	535	536	535	510	479	467	479	510	535	536	535	510	479
70	330	344	378	405	409	405	378	344	330	344	378	405	409	405	378	344
75	191	208	250	280	287	280	250	208	191	208	250	280	287	280	250	208
80	74	82	123	165	174	165	123	82	74	82	123	165	174	165	123	82
85	23	23	28	53	70	53	28	23	23	23	28	53	70	53	28	23
90	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
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/m^2)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
0	41500	41500	41500
45	32840	33890	34110
55	29240	30780	31500
65	24750	27040	28430
75	16530	21680	24840
85	5830	7133	17950

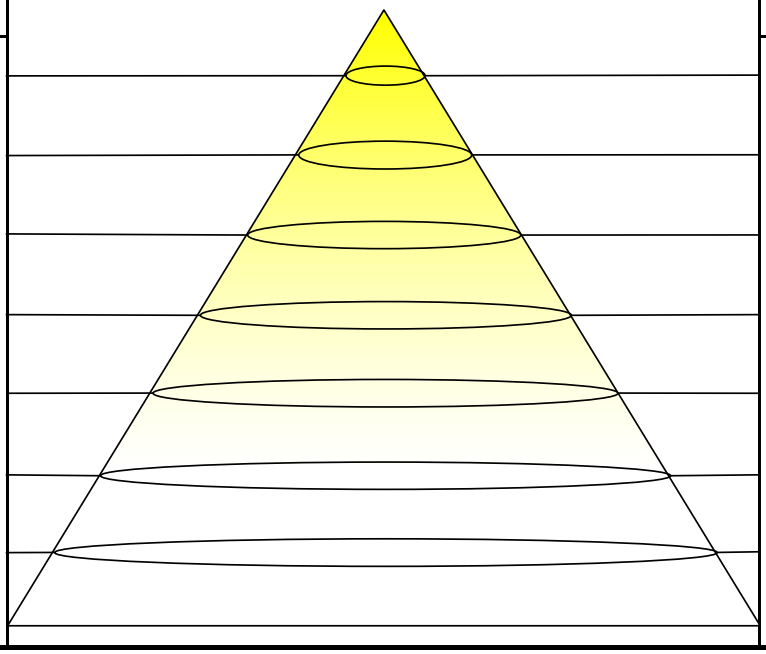
Utilization of Lumens - Zonal Cavity Method

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	5435	5435	5435	5435	5308	5308	5308	5308	5073	5073	5073	4857	4857	4857	4658	4658	4658	4565
1	4997	4793	4609	4444	4875	4690	4523	4372	4497	4360	4234	4319	4208	4105	4156	4067	3983	3890
2	4565	4207	3910	3661	4447	4121	3849	3617	3961	3731	3533	3812	3621	3453	3675	3518	3377	3281
3	4177	3715	3357	3072	4065	3643	3312	3045	3509	3225	2991	3384	3142	2939	3268	3064	2889	2792
4	3835	3306	2919	2624	3732	3246	2885	2605	3133	2819	2570	3028	2756	2535	2930	2695	2501	2405
5	3535	2966	2568	2274	3441	2915	2541	2262	2819	2490	2237	2730	2441	2213	2647	2393	2190	2095
6	3271	2679	2282	1997	3185	2636	2261	1988	2555	2220	1970	2479	2181	1953	2407	2143	1936	1844
7	3038	2436	2046	1772	2960	2399	2029	1766	2330	1996	1753	2264	1964	1740	2203	1934	1728	1639
8	2832	2228	1849	1588	2762	2197	1835	1583	2137	1808	1573	2081	1782	1564	2028	1757	1554	1469
9	2650	2050	1682	1434	2586	2023	1671	1431	1971	1649	1423	1922	1627	1416	1876	1607	1409	1327
10	2487	1895	1541	1305	2429	1871	1531	1302	1826	1513	1296	1784	1495	1291	1744	1477	1285	1206

Beam and Field Information	
CIE Type:	Direct
Center Beam Intenisty:	1851 Candela
Central Cone Intensity:	1848 Candela
Beam Flux:	3051.3 Lumens
Beam Angle (0-180):	97.6 Degrees
Beam Angle (90-270):	101.3 Degrees
Field Angle (0-180):	150.4 Degrees
Field Angle (90-270):	159.0 Degrees

Cone of Light Tabulation

Mounting Height (Feet)	Footcandles at Nadir	Diameter (Feet)
4.00	116	4.75
6.00	51.4	7.12
8.00	28.9	9.49
10.0	18.5	11.9
12.0	12.9	14.2
14.0	9.44	16.6
16.0	7.23	19.0



ISOFootcandle Plot

Mounting Height - 8 Feet