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## 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-8140N-3590**

Order Number

11642482

Test Number

11642482.08

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.  
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**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 ESM050W-1050-42

**Luminaire**



**Luminaire Characteristics**

Luminous Diameter: 8.00 in.

**Summary of Results**

Total Luminaire Output:	3528 Lumens
Luminaire Efficacy:	81.9 lm/w
Maximum Candela:	3542 Candela

**Test Conditions**

Test Temperature:	24.7 °C
Voltage:	120.0 VAC
Current:	0.3623 A
Power:	43.05 W
Power Factor:	0.991
Frequency:	60 Hz
Current THD:	10.9 %

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



## Distribution - Goniophotometer

### Distribution Test Conditions

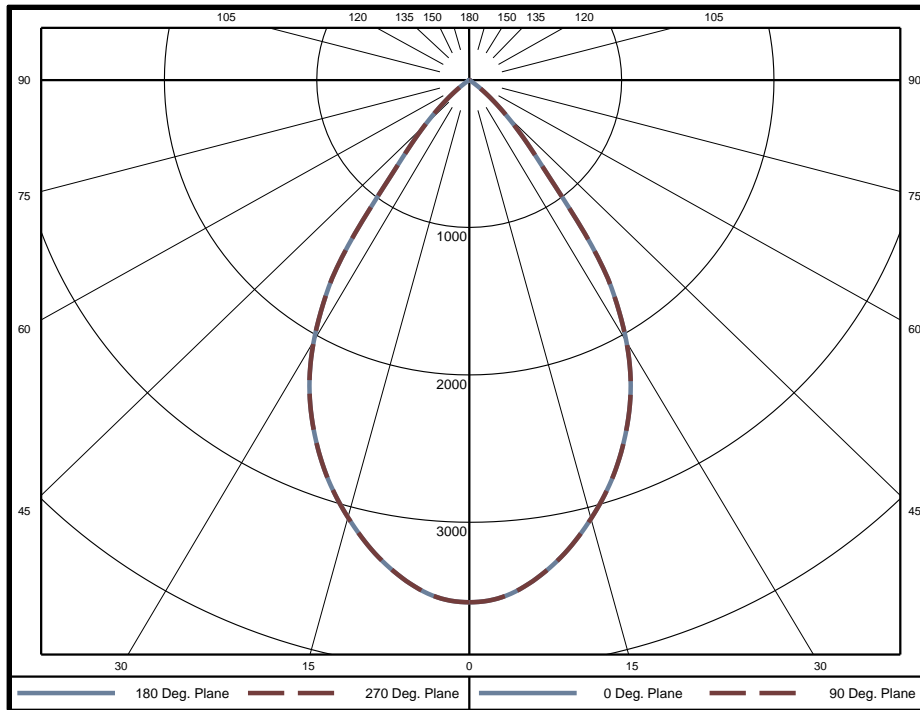
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.7 °C	120.0 VAC	0.3623 A	43.05 W	0.991	60 Hz	10.9 %

### Summary of Results

**Spacing Criteria**  
 0-180: 0.96  
 90-270: 0.96

**Total Lumen Output:** 3528 Lumens  
**Luminaire Efficacy:** 81.9 lm/w  
**Maximum Candela:** 3542 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	84.0	2.4%	60-65	5.0	0.1%	120-125	0	0.0%
5-10	242.8	6.9%	65-70	3.1	0.1%	125-130	0	0.0%
10-15	378.8	10.7%	70-75	2.0	0.1%	130-135	0	0.0%
15-20	484.8	13.7%	75-80	1.3	0.0%	135-140	0	0.0%
20-25	553.9	15.7%	80-85	0.7	0.0%	140-145	0	0.0%
25-30	576.0	16.3%	85-90	0.2	0.0%	145-150	0	0.0%
30-35	524.9	14.9%	90-95	0	0.0%	150-155	0	0.0%
35-40	340.5	9.7%	95-100	0	0.0%	155-160	0	0.0%
40-45	188.3	5.3%	100-105	0	0.0%	160-165	0	0.0%
45-50	98.1	2.8%	105-110	0	0.0%	165-170	0	0.0%
50-55	35.2	1.0%	110-115	0	0.0%	170-175	0	0.0%
55-60	9.0	0.3%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	3186	90.3%
0-60	3516	99.7%
0-90	3529	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	3542	3542	3542	3542	3542	3542	3542	3542	3542	3542	3542	3542	3542	3542	3542	3542
5	3482	3482	3482	3482	3482	3482	3482	3482	3482	3482	3482	3482	3482	3482	3482	3482
10	3312	3312	3312	3312	3312	3312	3312	3312	3312	3312	3312	3312	3312	3312	3312	3312
15	3079	3079	3079	3079	3079	3079	3079	3079	3079	3079	3079	3079	3079	3079	3079	3079
20	2806	2806	2806	2806	2806	2806	2806	2806	2806	2806	2806	2806	2806	2806	2806	2806
25	2477	2477	2477	2477	2477	2477	2477	2477	2477	2477	2477	2477	2477	2477	2477	2477
30	2061	2061	2061	2061	2061	2061	2061	2061	2061	2061	2061	2061	2061	2061	2061	2061
35	1468	1468	1468	1468	1468	1468	1468	1468	1468	1468	1468	1468	1468	1468	1468	1468
40	687	687	687	687	687	687	687	687	687	687	687	687	687	687	687	687
45	359	359	359	359	359	359	359	359	359	359	359	359	359	359	359	359
50	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
55	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
60	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
65	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
70	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
75	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
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/m<sup>2</sup>)**  
Horizontal Angle (Degrees)

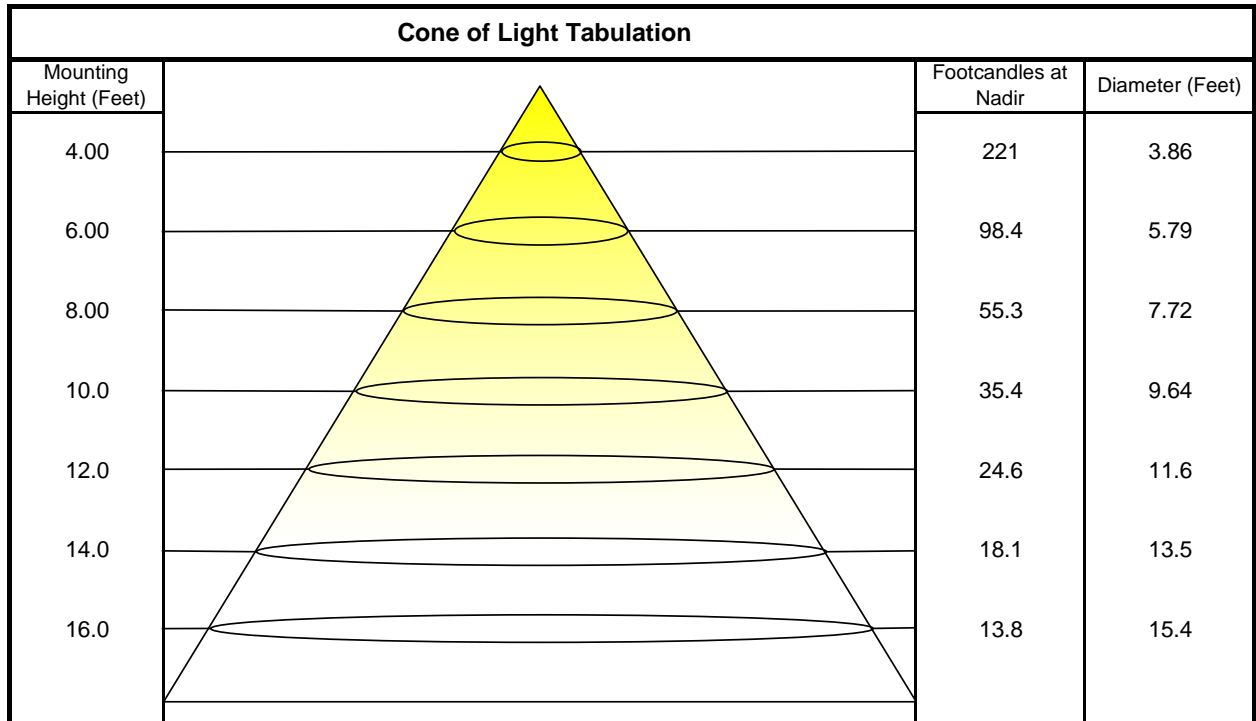
Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
0	109200	109200	109200
45	15660	15660	15660
55	1794	1794	1794
65	562	562	562
75	357	357	357
85	257	257	257



### 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	4201	4201	4201	4201	4103	4103	4103	4103	3920	3920	3920	3754	3754	3754	3600	3600	3600	3528
1	3999	3899	3809	3728	3912	3822	3742	3669	3679	3615	3556	3548	3497	3449	3427	3387	3350	3286
2	3793	3616	3469	3346	3714	3555	3421	3308	3440	3330	3235	3335	3245	3166	3237	3165	3100	3041
3	3592	3358	3177	3033	3521	3309	3142	3008	3216	3075	2960	3130	3012	2913	3050	2952	2868	2812
4	3401	3125	2923	2769	3336	3084	2897	2752	3008	2847	2719	2936	2799	2687	2870	2753	2656	2601
5	3219	2914	2700	2543	3160	2880	2680	2531	2816	2642	2508	2756	2605	2486	2701	2569	2464	2410
6	3048	2722	2503	2346	2995	2694	2488	2338	2640	2458	2322	2589	2429	2306	2542	2401	2290	2237
7	2888	2548	2328	2174	2839	2524	2316	2168	2478	2292	2156	2435	2269	2144	2395	2246	2133	2081
8	2739	2391	2172	2021	2695	2370	2162	2017	2331	2142	2008	2294	2124	1999	2259	2105	1990	1941
9	2600	2248	2032	1886	2560	2230	2023	1882	2196	2007	1876	2164	1992	1869	2134	1977	1862	1814
10	2472	2118	1906	1764	2436	2102	1899	1762	2073	1886	1757	2045	1873	1751	2018	1860	1746	1699

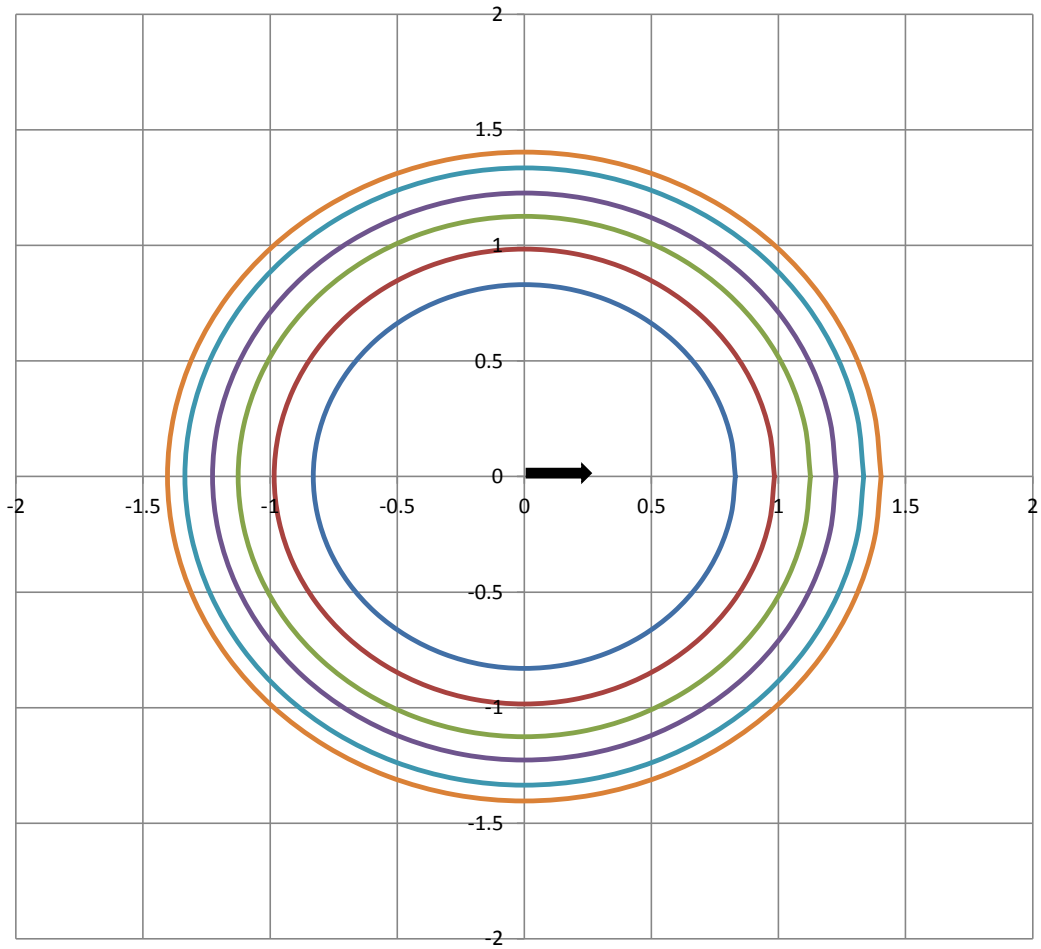
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	3542 Candela
Central Cone Intensity:	3522 Candela
Beam Flux:	2620.6 Lumens
Beam Angle (0-180):	65.4 Degrees
Beam Angle (90-270):	65.4 Degrees
Field Angle (0-180):	90.2 Degrees
Field Angle (90-270):	90.2 Degrees





# ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

