



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  
**Rosco Laboratories Inc**  
52 Harbor View Ave  
Stamford, CT 06902-5914  
United States

Catalog Number  
**MINI MIX with flat diffuser: LEDs tuned to 5600K**  
Order Number  
12451557  
Test Number  
12451557.12

Test Date

2018-08-10

Prepared By

Cordaryl Cousar, Technician

Approved By

Kevin Rodriguez, Project Handler

The results contained in this report pertain only to the tested sample.  
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**Luminaire Description:** Black formed aluminum housing, frosted plastic lens enclosure  
**Lamp:** 288 white/colored LEDs  
**Mounting:** Surface – Ceiling  
**Ballast/Driver:** One Mean Well GS120A24-P1M

**Luminaire**



**Luminaire Characteristics**

Luminous Length: 23.00 in.  
Luminous Width: 8.000 in.  
Luminous Height: 0.25 in.

**Summary of Results**

Total Luminaire Output: 6425 Lumens  
Luminaire Efficacy: 64.8 lm/w  
Maximum Candela: 2239 Candela

**Test Conditions**

Test Temperature: 24.7 °C  
Voltage: 120.0 VAC  
Current: 0.8289 A  
Power: 99.17 W  
Power Factor: 0.997  
Frequency: 60 Hz  
Current THD: 4.44 %

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



## Distribution - Goniophotometer

### Distribution Test Conditions

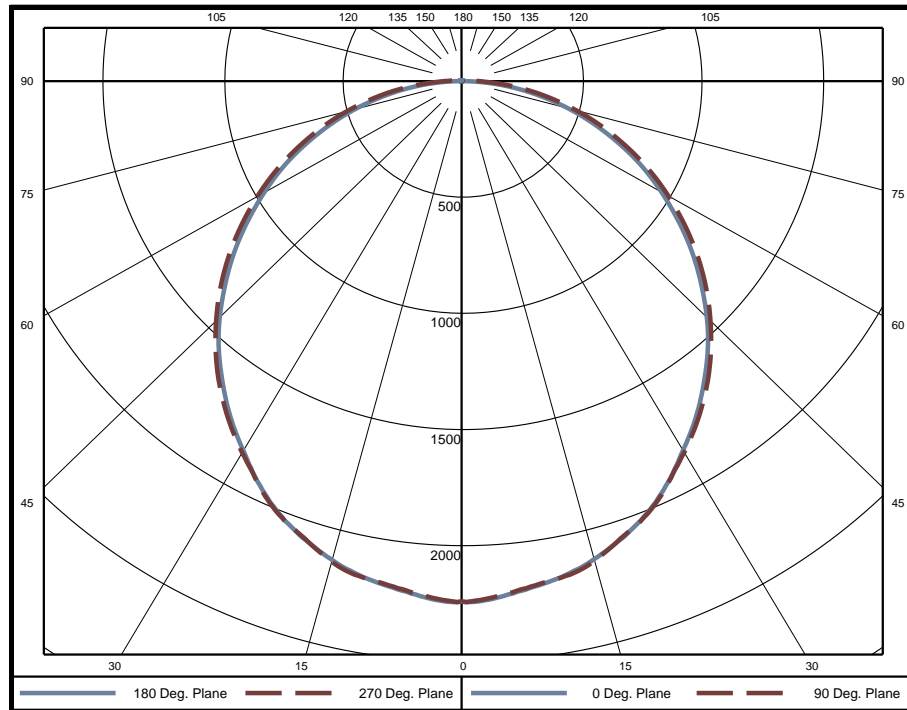
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.7 °C	120.0 VAC	0.8289 A	99.17 W	0.997	60 Hz	4.44 %

### Summary of Results

**Spacing Criteria**  
 0-180: 1.22  
 90-270: 1.23

**Total Lumen Output:** 6425 Lumens  
**Luminaire Efficacy:** 64.8 lm/w  
**Maximum Candela:** 2239 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	53.1	0.8%	60-65	432.8	6.7%	120-125	0	0.0%
5-10	156.6	2.4%	65-70	366.8	5.7%	125-130	0	0.0%
10-15	255.5	4.0%	70-75	291.9	4.5%	130-135	0	0.0%
15-20	343.9	5.4%	75-80	211.7	3.3%	135-140	0	0.0%
20-25	420.5	6.5%	80-85	130.1	2.0%	140-145	0	0.0%
25-30	479.4	7.5%	85-90	53.1	0.8%	145-150	0	0.0%
30-35	523.2	8.1%	90-95	14.8	0.2%	150-155	0	0.0%
35-40	551.3	8.6%	95-100	7.4	0.1%	155-160	0	0.0%
40-45	561.7	8.7%	100-105	3.0	0.0%	160-165	0	0.0%
45-50	553.4	8.6%	105-110	0.6	0.0%	165-170	0	0.0%
50-55	528.0	8.2%	110-115	0	0.0%	170-175	0	0.0%
55-60	486.6	7.6%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	2784	43.3%
0-60	4913	76.5%
0-90	6400	99.6%
90-180	26	0.4%



### 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	2235	2235	2235	2235	2235	2235	2235	2235	2235	2235	2235	2235	2235	2235	2235
	5	2214	2211	2208	2206	2209	2206	2208	2211	2214	2211	2208	2206	2209	2206	2208
	10	2177	2173	2173	2174	2177	2174	2173	2173	2177	2173	2173	2174	2177	2174	2173
	15	2125	2123	2126	2130	2133	2130	2126	2123	2125	2123	2126	2130	2133	2130	2126
	20	2052	2047	2048	2049	2051	2049	2048	2047	2052	2047	2048	2049	2051	2049	2047
	25	1956	1953	1955	1958	1961	1958	1955	1953	1956	1953	1955	1958	1961	1958	1955
	30	1833	1832	1834	1840	1844	1840	1834	1832	1833	1832	1834	1840	1844	1840	1834
	35	1712	1712	1716	1723	1728	1723	1716	1712	1712	1712	1716	1723	1728	1723	1716
	40	1580	1581	1586	1594	1600	1594	1586	1581	1580	1581	1586	1594	1600	1594	1586
	45	1437	1439	1444	1453	1458	1453	1444	1439	1437	1439	1444	1453	1458	1453	1444
	50	1280	1284	1293	1303	1309	1303	1293	1284	1280	1284	1293	1303	1309	1303	1293
	55	1120	1124	1134	1146	1152	1146	1134	1124	1120	1124	1134	1146	1152	1146	1134
	60	956	960	972	983	990	983	972	960	956	960	972	983	990	983	972
	65	794	798	808	820	826	820	808	798	794	798	808	820	826	820	808
	70	624	627	641	653	660	653	641	627	624	627	641	653	660	653	641
	75	459	464	477	490	495	490	477	464	459	464	477	490	495	490	477
	80	294	302	317	329	336	329	317	302	294	302	317	329	336	329	317
	85	139	151	165	179	183	179	165	151	139	151	165	179	183	179	165
	90	7	32	50	63	68	63	50	32	7	32	50	63	68	63	50
	95	5	7	19	29	34	29	19	7	5	7	19	29	34	29	19
	100	4	2	7	16	20	16	7	2	4	2	7	16	20	16	7
	105	1	0	0	5	9	5	0	0	1	0	0	5	9	5	0
	110	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
	120	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
	130	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
	140	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
	150	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
	160	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
	170	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
	180	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)

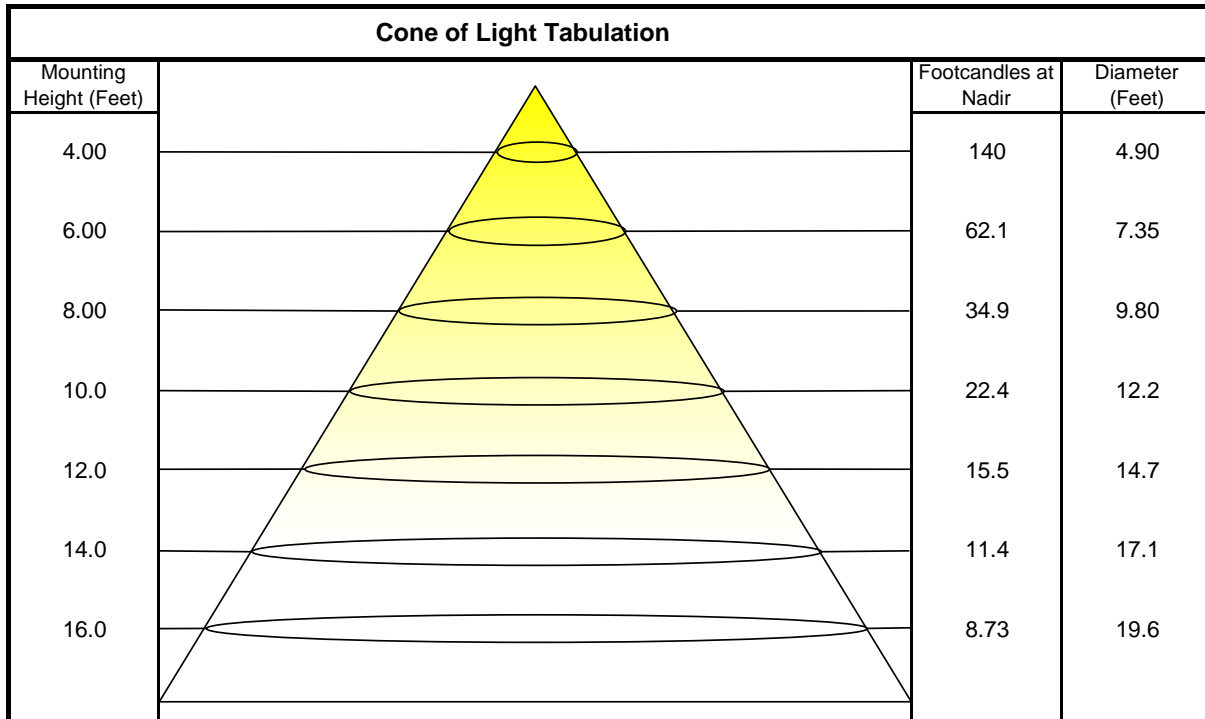
Vertical Angle (Degrees)	0	45	90
	0	18830	18830
	45	16930	16710
	55	16190	15970
	65	15470	15140
	75	14350	13980
	85	11970	11910



### Coefficients of Utilization - 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 percent of total lumen output delivered to the task surface **																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	94	105	101	97	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	88	81	75	84	78	74	80	76	72	77	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	60	53	65	58	52	63	57	51	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

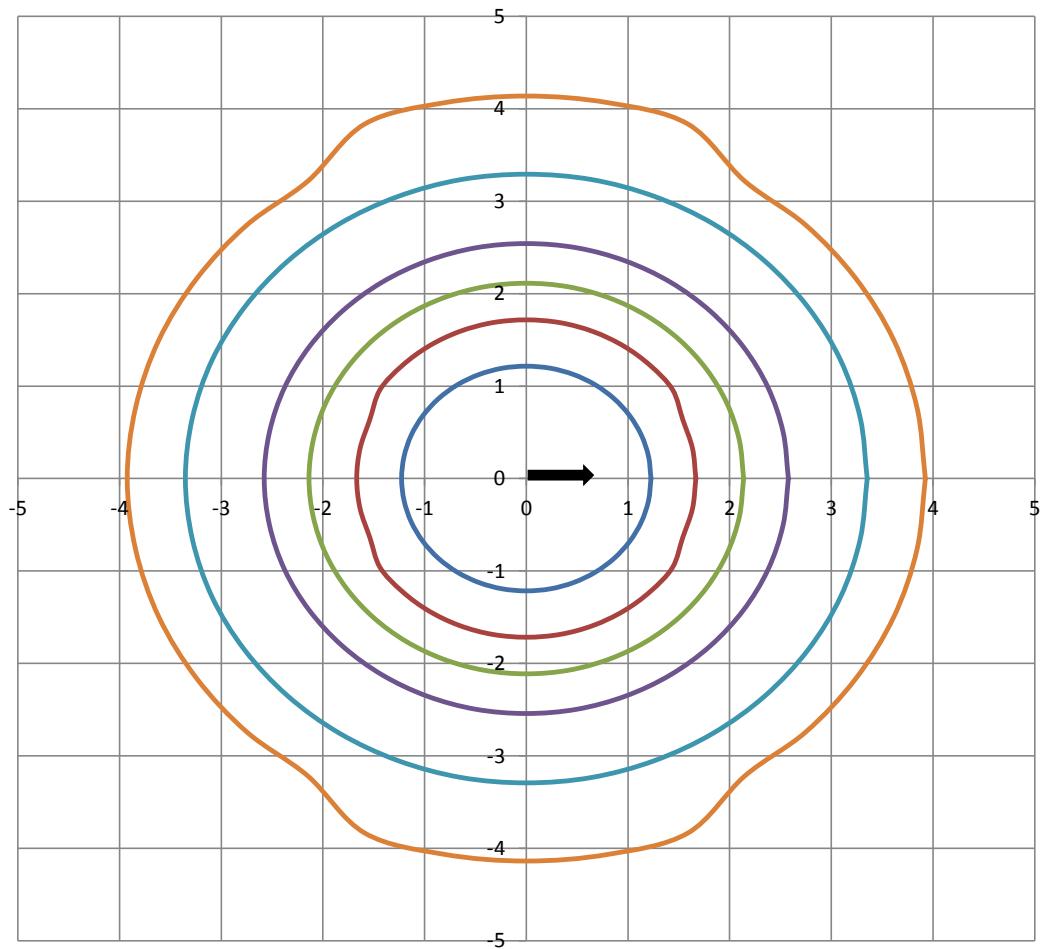
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	2235 Candela
Central Cone Intensity:	2225 Candela
Beam Flux:	4482.5 Lumens
Beam Angle (0-180):	110.1 Degrees
Beam Angle (90-270):	112.1 Degrees
Field Angle (0-180):	164.6 Degrees
Field Angle (90-270):	167.3 Degrees





## 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