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Indoor Distribution Test Report

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

Prepared For
Scientific Lighting Products, Div of Koller Enterprises

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1400 S Old Highway 141
Fenton, MO 63026-5733
United States

Catalog Number
CT2-2L4 2R (Frosted CIRA Lens)

Order Number
11161897
Test Number
1216841

Test Date

2016-03-02

Prepared By

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Approved By

Timothy Wagner, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: White plastic housing, frosted lens enclosure
Lamp: 176 white LEDs
Mounting: Pendant
Ballast/Driver: One Philips Xitanium XI075C200V054XPT1

Luminaire



Luminaire Characteristics

Luminous Length: 51.00 in.
Luminous Width: 6.000 in.
Luminous Height: 2.00 in.

Summary of Results

Total Luminaire Output: 8694 Lumens
Luminaire Efficacy: 123.4 lm/w
Maximum Candela: 3020 Candela

Electrical Data

Test Temperature: 24.6 °C
Voltage: 120.0 VAC
Current: 0.5906 A
Power: 70.47 W
Power Factor: 0.995
Frequency: 60 Hz
Current THD: 9.84 %

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
24.6 °C	120.0 VAC	0.5906 A	70.47 W	0.995	60 Hz	9.84 %

Summary of Results

Spacing Criteria

0-180: 1.28
90-270: 1.28

Total Lumen Output:

8694 Lumens

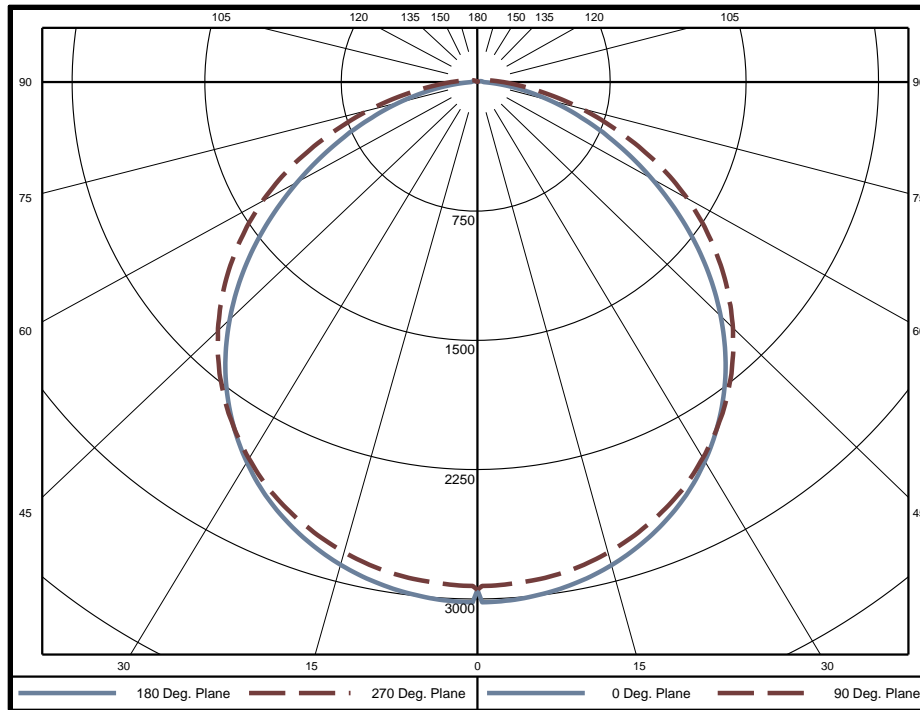
Luminaire Efficacy:

123.4 lm/w

Maximum Candela:

3020 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	70.4	0.8%	60-65	562.1	6.5%	120-125	3.6	0.0%
5-10	208.9	2.4%	65-70	460.8	5.3%	125-130	2.2	0.0%
10-15	340.8	3.9%	70-75	352.9	4.1%	130-135	1.5	0.0%
15-20	461.5	5.3%	75-80	248.7	2.9%	135-140	1.3	0.0%
20-25	567.2	6.5%	80-85	158.1	1.8%	140-145	1.2	0.0%
25-30	654.0	7.5%	85-90	92.1	1.1%	145-150	1.1	0.0%
30-35	718.3	8.3%	90-95	53.6	0.6%	150-155	1.0	0.0%
35-40	757.7	8.7%	95-100	33.1	0.4%	155-160	0.8	0.0%
40-45	770.5	8.9%	100-105	21.2	0.2%	160-165	0.7	0.0%
45-50	755.9	8.7%	105-110	13.9	0.2%	165-170	0.5	0.0%
50-55	714.3	8.2%	110-115	9.2	0.1%	170-175	0.3	0.0%
55-60	648.3	7.5%	115-120	6.0	0.1%	175-180	0.1	0.0%

Zone	Lumens	% of Luminaire
0-40	3779	43.5%
0-60	6668	76.7%
0-90	8543	98.3%
90-180	151	1.7%



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	2948	2948	2948	2948	2948	2948	2948	2948	2948	2948	2948	2948	2948	2948	2948
	5	3007	2952	2917	2916	2913	2916	2917	2952	3007	2952	2917	2916	2913	2916	2952
	10	2967	2914	2884	2884	2884	2884	2884	2914	2967	2914	2884	2884	2884	2884	2914
	15	2903	2852	2825	2827	2826	2827	2825	2852	2903	2852	2825	2827	2826	2827	2852
	20	2812	2764	2742	2746	2746	2746	2742	2764	2812	2764	2742	2746	2746	2742	2764
	25	2694	2651	2636	2644	2647	2644	2636	2651	2694	2651	2636	2644	2647	2644	2651
	30	2545	2511	2507	2518	2520	2518	2507	2511	2545	2511	2507	2518	2520	2518	2511
	35	2368	2342	2355	2373	2375	2373	2355	2342	2368	2342	2355	2373	2375	2373	2355
	40	2163	2154	2181	2202	2210	2202	2181	2154	2163	2154	2181	2202	2210	2202	2181
	45	1929	1942	1988	2016	2021	2016	1988	1942	1929	1942	1988	2016	2021	2016	1988
	50	1675	1712	1778	1808	1814	1808	1778	1712	1675	1712	1778	1808	1814	1808	1778
	55	1405	1468	1551	1585	1591	1585	1551	1468	1405	1468	1551	1585	1591	1585	1551
	60	1134	1217	1312	1350	1358	1350	1312	1217	1134	1217	1312	1350	1358	1350	1312
	65	876	969	1070	1103	1107	1103	1070	969	876	969	1070	1103	1107	1103	1070
	70	639	737	831	848	845	848	831	737	639	737	831	848	845	848	831
	75	433	526	604	610	607	610	604	526	433	526	604	610	607	610	604
	80	250	345	409	405	396	405	409	345	250	345	409	405	396	405	409
	85	107	206	256	247	239	247	256	206	107	206	256	247	239	247	256
	90	36	111	153	148	144	148	153	111	36	111	153	148	144	148	153
	95	29	58	93	93	89	93	93	58	29	58	93	93	89	93	93
	100	26	30	59	62	61	62	59	30	26	30	59	62	61	62	59
	105	21	16	36	44	44	44	36	16	21	16	36	44	44	44	36
	110	16	10	22	31	32	31	22	10	16	10	22	31	32	31	22
	115	12	8	13	21	23	21	13	8	12	8	13	21	23	21	13
	120	8	7	7	14	16	14	7	7	8	7	7	14	16	14	7
	125	6	5	3	8	10	8	3	5	6	5	3	8	10	8	3
	130	5	4	3	4	6	4	3	4	5	4	3	4	6	4	3
	135	4	4	3	3	3	3	3	4	4	4	3	3	3	3	4
	140	4	4	4	3	3	3	4	4	4	4	4	3	3	3	4
	145	4	4	4	4	3	4	4	4	4	4	4	4	3	4	4
	150	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	155	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	160	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	165	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	170	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	175	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	180	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

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

Vertical Angle (Degrees)	0	45	90
	0	14930	14930
	45	13290	10860
	55	11750	9517
	65	9687	7735
	75	7393	5295
	85	4287	2887



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	10314	10314	10314	10314	10056	10056	10056	10056	9576	9576	9576	9136	9136	9136	8732	8732	8732	8543
1	9384	8954	8568	8220	9129	8740	8389	8071	8341	8052	7788	7974	7739	7522	7636	7448	7272	7077
2	8525	7793	7187	6677	8280	7614	7058	6585	7279	6812	6408	6971	6581	6239	6685	6364	6077	5878
3	7767	6837	6117	5543	7536	6687	6020	5483	6404	5835	5365	6143	5659	5252	5901	5492	5143	4944
4	7108	6053	5281	4691	6894	5927	5206	4649	5688	5063	4568	5466	4926	4489	5260	4796	4412	4216
5	6534	5406	4617	4035	6339	5298	4558	4005	5096	4445	3946	4907	4337	3889	4731	4233	3833	3642
6	6032	4864	4081	3518	5854	4773	4034	3496	4600	3942	3452	4438	3855	3409	4287	3771	3367	3183
7	5591	4408	3641	3104	5430	4330	3603	3087	4181	3528	3053	4042	3457	3020	3912	3387	2987	2811
8	5204	4021	3277	2766	5058	3953	3245	2752	3825	3183	2726	3705	3124	2700	3591	3066	2674	2505
9	4860	3689	2971	2486	4728	3630	2944	2475	3519	2893	2454	3414	2843	2433	3315	2794	2412	2251
10	4556	3402	2712	2252	4436	3351	2689	2243	3254	2646	2226	3162	2603	2208	3076	2562	2191	2037

Cone of Light Tabulation

Mounting Height (Feet)	Footcandles at Nadir	Diameter (Feet)
4.00	184	5.07
6.00	81.9	7.61
8.00	46.1	10.1
10.0	29.5	12.7
12.0	20.5	15.2
14.0	15.0	17.7
16.0	11.5	20.3

Cone of Light Plot

