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Photometric Test Report

Relevant Standards

IES LM-79-2008, ANSI C82.77-2002, CIE 13.3-1995
CIE 15-2004, ANSI C78.377-2017, IES TM-30-2015

Prepared For

LDPI Inc

4404 Anderson Dr
Eau Claire, WI 54703
United State

Catalog Number

380-LEDH5-2L-4-UNV1

Order Number

12520987

Test Number

12520987.07

Test Date

2018-10-19 - 2018-10-23

Prepared By

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Approved By

Kevin Rodriguez, Project Handler

The results contained in this report pertain only to the tested sample.
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Laboratory results may not be representative of field performance
Ballast factors have not been applied

Absorption correction was employed for Sphere measurement



Luminaire Description: White formed aluminum housing, clear glass lens enclosure
Lamp: Two T8LDR4F15/850C Lamps
Mounting: Pendant
Ballast/Driver: One Universal B232IUNVHEH-A-N

Luminaire



Luminaire Characteristics

Luminous Length: 48.00 in.
Luminous Width: 8.500 in.
Luminous Height: 3.00 in.

Summary of Results

Integrating Sphere

Luminous Flux: 5144 Lumens
Efficacy: 102.6 lm/w
CCT: 5023 K
CRI (Ra): 83.2

Distribution

Total Luminaire Output: 4942 Lumens
Luminaire Efficacy: 98.5 lm/w
Maximum Candela: 1435 Candela

Electrical Data at 120 VAC

Test Temperature: 25.1 °C
Voltage: 120.0 VAC
Current: 0.4189 A
Power: 50.13 W
Power Factor: 0.997
Frequency: 60 Hz
Current THD: 4.98 %



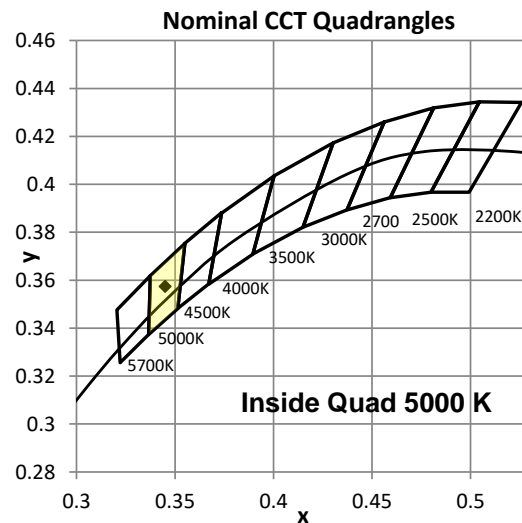
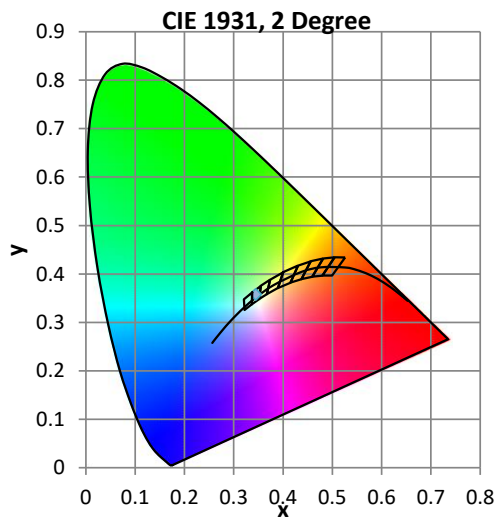
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.1 °C	120.0 VAC	0.4189 A	50.13 W	0.997	60 Hz	4.98 %

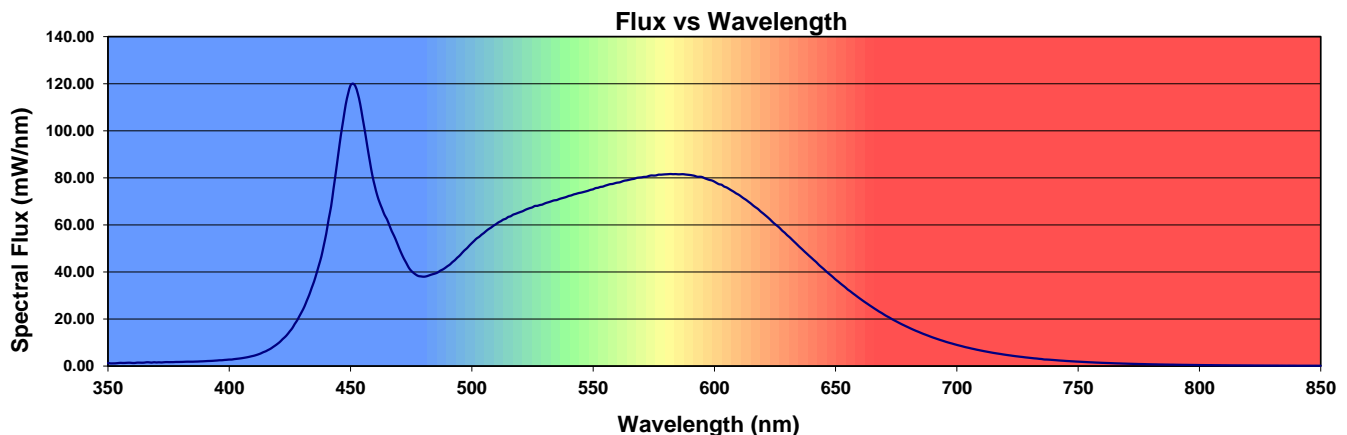
Summary of Results

Total Output:	5144 Lumens	Chromaticity (x):	0.3449
Efficacy:	102.6 lm/w	Chromaticity (y):	0.3575
CCT:	5023 K	Chromaticity (u'):	0.2090
CRI (Ra):	83.2	Chromaticity (v'):	0.4875
CRI (R9):	4.7	TM-30 Rf:	82.7
Peak Wavelength:	451 nm	TM-30 Rg:	94.6
Dominant Wavelength:	570 nm	Duv:	0.0022
S/P Ratio:	1.98		



Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
83.2	81.1	89.0	94.1	82.5	82.1	84.7	86.5	65.9	4.7	73.7	81.7	66.0	83.1	97.0	75.0





Distribution - Goniophotometer

Distribution Test Conditions

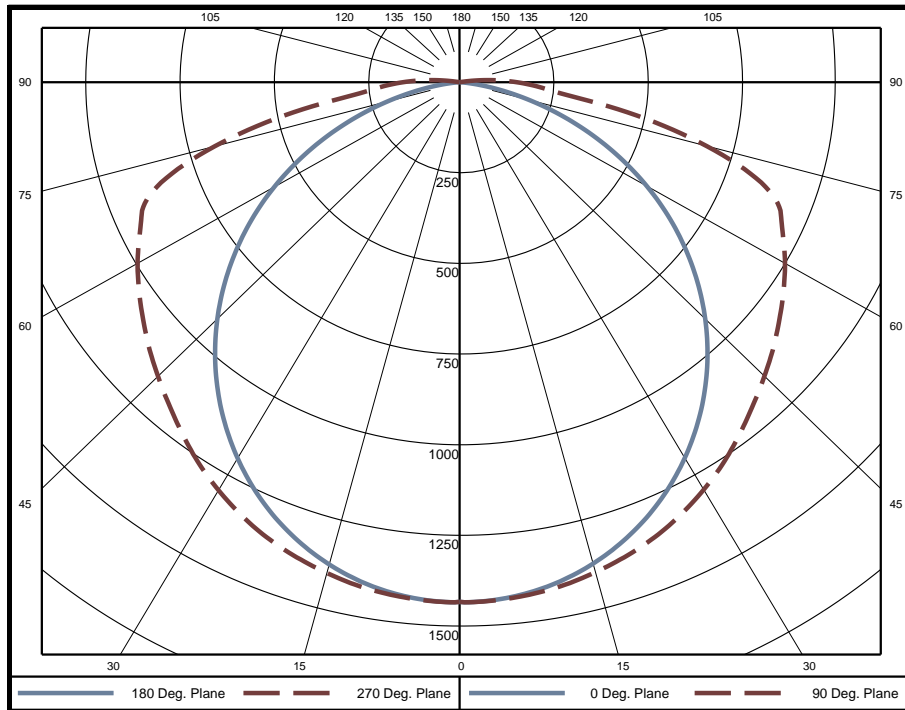
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.6 °C	120.0 VAC	0.4188 A	50.16 W	0.998	60 Hz	4.97 %

Summary of Results

Spacing Criteria
 0-180: 1.24
 90-270: 1.35

Total Lumen Output: 4942 Lumens
Luminaire Efficacy: 98.5 lm/w
Maximum Candela: 1435 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	34.2	0.7%	60-65	369.2	7.5%	120-125	0	0.0%
5-10	101.6	2.1%	65-70	343.4	6.9%	125-130	0	0.0%
10-15	166.0	3.4%	70-75	302.0	6.1%	130-135	0	0.0%
15-20	225.5	4.6%	75-80	228.4	4.6%	135-140	0	0.0%
20-25	278.4	5.6%	80-85	133.3	2.7%	140-145	0	0.0%
25-30	323.2	6.5%	85-90	67.7	1.4%	145-150	0	0.0%
30-35	358.6	7.3%	90-95	30.2	0.6%	150-155	0	0.0%
35-40	383.8	7.8%	95-100	4.8	0.1%	155-160	0	0.0%
40-45	398.8	8.1%	100-105	0.0	0.0%	160-165	0	0.0%
45-50	404.2	8.2%	105-110	0	0.0%	165-170	0	0.0%
50-55	400.3	8.1%	110-115	0	0.0%	170-175	0	0.0%
55-60	388.6	7.9%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1871	37.9%
0-60	3463	70.1%
0-90	4907	99.3%
90-180	35	0.7%



Candela Tabulation
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	1434	1434	1434	1434	1434	1434	1434	1434	1434	1434	1434	1434	1434	1434	1434	1434
5	1428	1427	1427	1430	1431	1430	1427	1427	1428	1427	1427	1430	1431	1430	1427	1427
10	1408	1408	1411	1417	1419	1417	1411	1408	1408	1408	1411	1417	1419	1417	1411	1408
15	1375	1377	1385	1395	1399	1395	1385	1377	1375	1377	1385	1395	1399	1395	1385	1377
20	1328	1333	1349	1366	1374	1366	1349	1333	1328	1333	1349	1366	1374	1366	1349	1333
25	1269	1278	1304	1331	1340	1331	1304	1278	1269	1278	1304	1331	1340	1331	1304	1278
30	1198	1212	1251	1285	1299	1285	1251	1212	1198	1212	1251	1285	1299	1285	1251	1212
35	1117	1137	1188	1233	1252	1233	1188	1137	1117	1137	1188	1233	1252	1233	1188	1137
40	1026	1054	1118	1175	1198	1175	1118	1054	1026	1054	1118	1175	1198	1175	1118	1054
45	925	964	1041	1117	1148	1117	1041	964	925	964	1041	1117	1148	1117	1041	964
50	817	864	961	1061	1099	1061	961	864	817	864	961	1061	1099	1061	961	864
55	701	759	885	1005	1050	1005	885	759	701	759	885	1005	1050	1005	885	759
60	578	652	811	951	1001	951	811	652	578	652	811	951	1001	951	811	652
65	450	542	740	893	948	893	740	542	450	542	740	893	948	893	740	542
70	320	441	669	834	878	834	669	441	320	441	669	834	878	834	669	441
75	196	348	589	669	682	669	589	348	196	348	589	669	682	669	589	348
80	89	263	401	425	428	425	401	263	89	263	401	425	428	425	401	263
85	14	134	183	224	237	224	183	134	14	134	183	224	237	224	183	134
90	0	36	99	139	152	139	99	36	0	36	99	139	152	139	99	36
95	0	0	19	54	66	54	19	0	0	0	19	54	66	54	19	0
100	0	0	0	0	2	0	0	0	0	0	0	0	2	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)

	0	45	90
0	5446	5446	5446
45	4679	4324	4559
55	4262	4128	4625
65	3565	4078	4851
75	2335	4127	4323
85	358	1831	2055

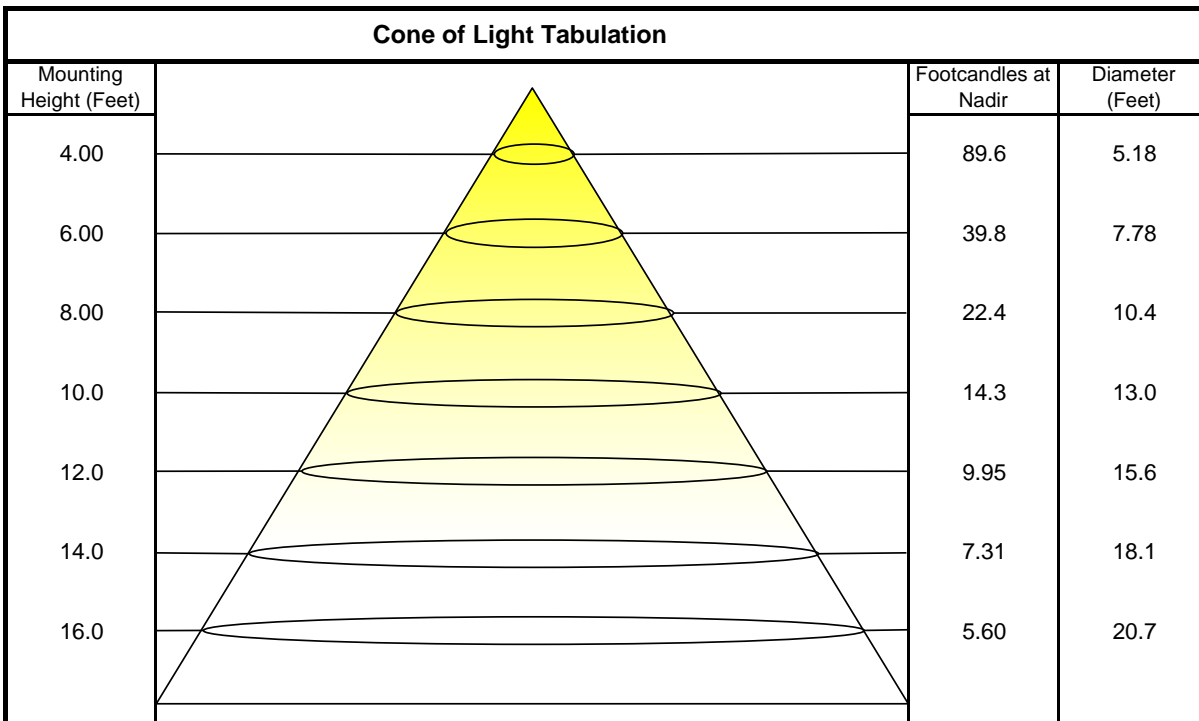


Coefficients of Utilization - Zonal Cavity Method

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	101	101	101	99
1	107	101	96	92	104	99	94	90	94	91	87	90	87	84	86	84	82	79
2	96	87	79	73	93	85	78	72	81	75	70	78	73	68	74	70	66	64
3	87	75	66	59	84	74	65	59	70	63	57	67	61	56	65	60	55	53
4	79	66	57	49	77	65	56	49	62	54	48	60	53	47	57	51	47	44
5	73	59	49	42	70	58	49	42	55	47	41	53	46	41	51	45	40	38
6	67	53	43	36	65	52	43	36	50	42	36	48	41	35	46	40	35	33
7	62	48	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	29
8	57	43	34	28	56	43	34	28	41	33	28	40	33	28	39	32	27	25
9	54	40	31	25	52	39	31	25	38	30	25	37	30	25	36	29	25	23
10	50	37	28	23	49	36	28	23	35	28	23	34	27	23	33	27	22	21

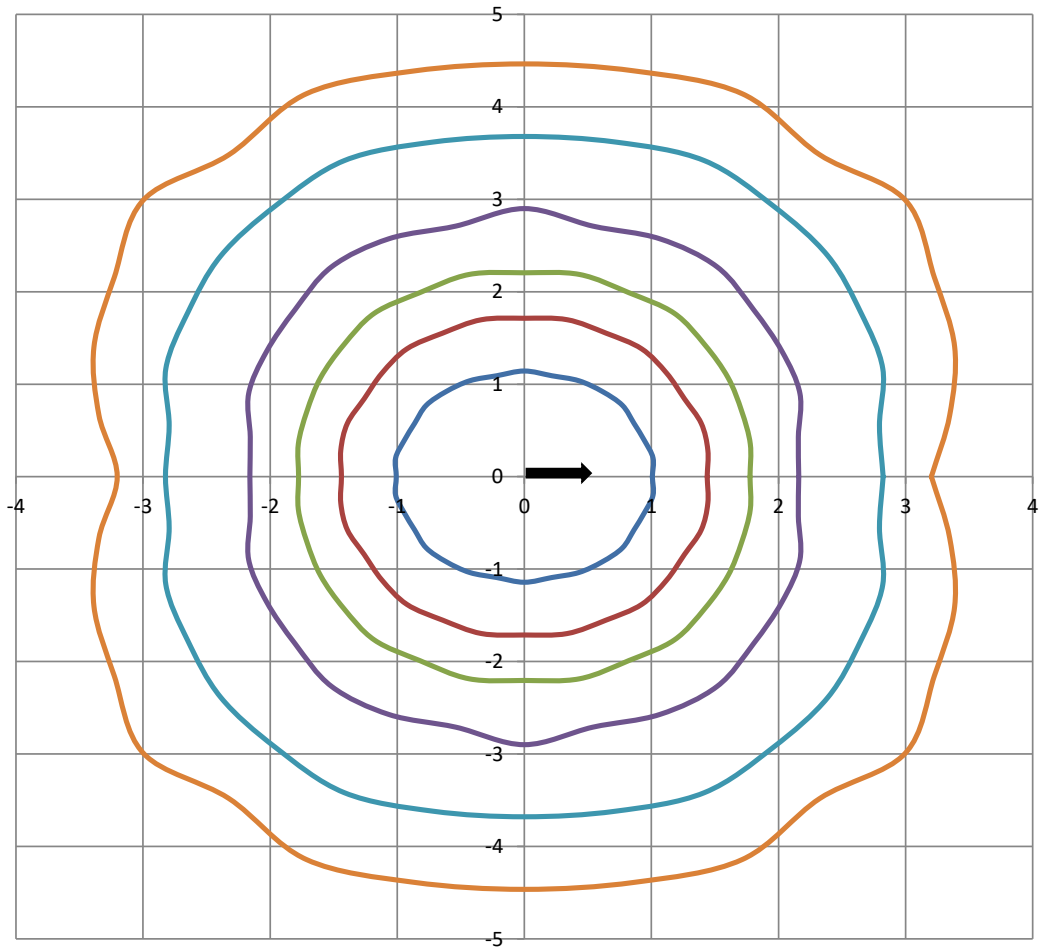
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1434 Candela
Central Cone Intensity:	1432 Candela
Beam Flux:	3960.5 Lumens
Beam Angle (0-180):	108.7 Degrees
Beam Angle (90-270):	148.5 Degrees
Field Angle (0-180):	154.6 Degrees
Field Angle (90-270):	181.1 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

