LightLab INTERNATIONAL ALLENTOWN LLC

NVLAP TESTING Lab Code: 201079-0

Report of Test

LLIA001045-001A

Catalog Number: EVT4MDUVFA850
Surface mounted, formed gray plastic housing with frosted section below LEDs,
formed white enamel steel LED tray/reflector.
112 white LEDs, two ULT Everline M10CC850D56N2A boards with 56 LEDs each.
One ULT Everline D15CC55UNVPW-C LED driver
120.0Vac, 60.00Hz, 0.4375A, 51.69W, 0.985PF, 5.9%THD(i)

Performance Summary

Total Light Output	6012	lm
Luminaire Power	51.7	W
Luminous Efficacy	116.3	lm/W

PREPARED FOR : Lumen Focus, LLC, 880 Facet Road, Henderson, NC 27537, USA

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Legend: C0-Black, C45-Green, C90-Blue (cd)

(Two plane symmetry) C0-C90

INTENSITY SUMMARY (cd)

Gamma	C0	C22.5	C45	C67.5	C90	Flux (lm)
0.0	1834	1834	1834	1834	1834	
5.0	1824	1813	1835	1832	1822	173
10.0	1791	1783	1809	1811	1804	
15.0	1739	1734	1766	1777	1774	496
20.0	1668	1667	1708	1730	1732	
25.0	1580	1583	1635	1669	1678	751
30.0	1477	1486	1550	1596	1612	
35.0	1362	1376	1453	1511	1534	905
40.0	1235	1257	1348	1415	1446	
45.0	1101	1132	1234	1311	1347	946
50.0	965	1004	1115	1199	1238	
55.0	827	874	989	1080	1122	876
60.0	687	743	862	960	1002	
65.0	546	612	736	840	881	719
70.0	405	481	616	723	762	
75.0	268	358	505	612	648	513
80.0	144	251	405	510	543	
85.0	44	165	318	417	448	316
90.0	0	101	242	335	365	

AVERAGE LUMINANCE (cd / m^2)

Gamma	C0	C45	C90
45.0	21054	17433	17161
55.0	19482	15490	15430
65.0	17466	13393	13595
75.0	14019	11366	11810
85.0	6760	9768	10351

ZONAL FLUX AND PERCENTAGES

Zone	Flux (lm)	% Lamp	% Luminaire
0-30	1420	N / A	23.6
0-40	2326	N / A	38.7
0-60	4148	N / A	69.0
0-90	5695	N / A	94.7
40-90	3369	N / A	56.0
60-90	1547	N / A	25.7
90-180	317	N / A	5.3
0-180	6012	N / A	100.0

Total Light Output = 6,012 lm

Spacing Criterion: 0-180 1.2
Spacing Criterion: 90-270 1.3

Signed: Michael L. Grather

Authorized Signatory

Date of test 26-Oct-2018
Date of report 29-Oct-2018

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Intensity data (cd)

	C-Plane				
Gamma	**C0**	**C22.5**	**C45**	**C67.5**	**C90**
0.0	1834	1834	1834	1834	1834
2.5	1832	1820	1841	1837	1826
5.0	1824	1813	1835	1832	1822
7.5	1810	1800	1824	1823	1814
10.0	1791	1783	1809	1811	1804
12.5	1768	1761	1790	1796	1791
15.0	1739	1734	1766	1777	1774
17.5	1706	1702	1739	1755	1755
20.0	1668	1667	1708	1730	1732
22.5	1626	1627	1674	1701	1707
25.0	1580	1583	1635	1669	1678
27.5	1531	1536	1594	1634	1646
30.0	1477	1486	1550	1596	1612
32.5	1421	1432	1503	1555	1575
35.0	1362	1376	1453	1511	1534
37.5	1300	1318	1402	1465	1492
40.0	1235	1257	1348	1415	1446
42.5	1169	1195	1292	1364	1397
45.0	1101	1132	1234	1311	1347
47.5	1033	1068	1175	1256	1293
50.0	965	1004	1115	1199	1238
52.5	896	939	1052	1140	1181
55.0	827	874	989	1080	1122
57.5	757	809	926	1020	1063
60.0	687	743	862	960	1002
62.5	616	677	798	899	941
65.0	546	612	736	840	881
67.5	475	546	675	781	821
70.0	405	481	616	723	762
72.5	336	418	559	667	704
75.0	268	358	505	612	648
77.5	204	302	453	560	594
80.0	144	251	405	510	543
82.5	89	206	360	462	494
85.0	44	165	318	417	448
87.5	12	130	278	374	405
90.0	0	101	242	335	365

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Intensity data (cd)

	C-Plane				
Gamma	**C0**	**C22.5**	**C45**	**C67.5**	**C90**
90.0	0	101	242	335	365
92.5	0	78	210	299	328
95.0	0	59	182	266	294
97.5	0	43	156	236	262
100.0	0	30	133	209	233
102.5	0	17	112	184	207
105.0	0	5	92	161	183
107.5	0	1	74	138	160
110.0	0	0	56	116	137
112.5	0	0	38	96	116
115.0	0	0	21	77	97
117.5	0	0	8	57	77
120.0	0	0	1	38	56
122.5	0	0	0	19	36
125.0	0	0	0	7	18
127.5	0	0	0	2	6
130.0	0	0	0	0	2
132.5	0	0	0	0	0
135.0	0	0	0	0	0
137.5	0	0	0	0	0
140.0	0	0	0	0	0
142.5	0	0	0	0	0
145.0	0	0	0	0	0
147.5	0	0	0	0	0
150.0	0	0	0	0	0
152.5	0	0	0	0	0
155.0	0	0	0	0	0
157.5	0	0	0	0	0
160.0	0	0	0	0	0
162.5	0	0	0	0	0
165.0	0	0	0	0	0
167.5	0	0	0	0	0
170.0	0	0	0	0	0
172.5	0	0	0	0	0
175.0	0	0	0	0	0
177.5	0	0	0	0	0
180.0	0	0	0	0	0

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Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	97	97	97	95
1	106	100	95	91	102	98	93	89	92	89	85	87	84	82	83	81	78	76
2	96	87	79	73	92	84	77	72	80	74	69	76	71	67	72	68	65	62
3	87	76	67	60	84	74	66	59	70	63	57	66	61	56	63	58	54	52
4	79	67	58	51	77	65	57	50	62	55	49	59	53	47	56	51	46	44
5	73	60	50	43	70	58	49	43	55	48	42	53	46	41	50	45	40	38
6	67	54	44	38	65	52	44	37	50	42	37	48	41	36	46	40	35	33
7	62	48	39	33	60	47	39	33	45	38	32	43	37	32	42	36	31	29
8	58	44	35	30	56	43	35	29	41	34	29	40	33	28	38	32	28	26
9	54	41	32	27	52	40	32	26	38	31	26	37	30	25	35	29	25	23
10	51	37	29	24	49	37	29	24	35	28	23	34	28	23	33	27	23	21

For absolute test reports, CUs are expressed as a percentage of total lumen output. Calculations were based on published IES procedures, and are based on the zonal cavity method. Basic assumptions: 1) Room surfaces are lambertian reflectors. 2) Incident flux on each surface is uniformly distributed. 3) The room is spectrally neutral. When luminaires are not evenly distributed throughout the room, or do not exhibit lateral symmetry, CU values may differ from actual performance.

Circle of Light Plot

Height(ft)	Illuminance at Nadir (fc)	Beam Width (across 50% Nadir Illum) 0-180	90-270
6.0	50.9	7.21	7.85
8.0	28.7	9.61	10.46
10.0	18.3	12.01	13.08
12.0	12.7	14.41	15.69
14.0	9.4	16.81	18.31
16.0	7.2	19.22	20.93

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Test Distance	9.5 m
Test Temperature	25.2 °C

Notes

The laboratory has not participated in the selection of samples to be tested. All testing is performed on the understanding that the significance of the report is limited to the extent that the test sample is representative of production units.

Tested in accordance with the applicable sections of publications: IES LM-79-08 (Sec. 12), IES LM-16-93, IES LM-58-13, CIE 13.3:1995, CIE 15:2004, ANSI C78.377:2015, ANSI C82.77-10:2014.

The luminous intensity values, and other derived quantities, contained in this report are based on the absolute data, as measured.

Prorating the performance of the sample for the use of other component combinations (such as lamp / LED / Ballast / driver), or for use in different environmental conditions than that tested, may produce erroneous results.

This report is free of erasures and corrections.

Photometric intensity values are reported using the CIE Gamma coordinate system as defined in CIE publication number 121.

This report may contain data that are not covered by the NVLAP accreditation. Quantities marked with * are not covered.

This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the Federal Government.

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