HUBBELL Industrial Lighting

Photometric Report

Hubbell Lighting, Inc.

LUMINAIRE: KXL-36L-X-5K-5R
KxL Kemlux III Led, Extreme Environment
Kemlux III LED fixture
BALLAST: LED40W54C0700D
BALLAST FACTOR: 1.00
LAMP: Led
FIXTURE LUMENS: 8746
WATTS: 85.30
MOUNTING: Pendant
SHIELDING ANGLE: 0º = 90 90º = 90
SPACING CRITERION: 0º = 3.89 90º = 2.37
LUMINOUS OPENING IN FEET
LENGTH: 1.00
WIDTH: 1.00
HEIGHT: 0.00

TEST #7096
DATE: 6/10/2013
TOTAL LUMINAIRE EFFICIENCY = 100.0
TOTAL LUMENS PER WATT = 103
ANSI/IESNA RP-1-2004 COMPLIANCE: NONCOMPLIANT
COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = $2.33
BASED ON 3000 HRS. AND $.08 PER KWH

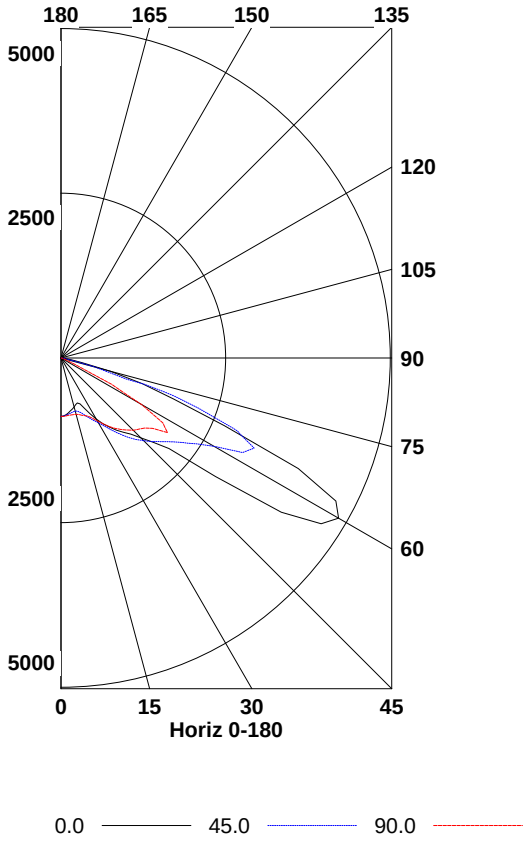
ZONAL LUMENS

ZONE	LUMENS	% LAMP	% FIXTURE
0-30	765	8.7	8.7
0-40	1584	18.1	18.1
0-60	5235	59.9	59.9
0-90	8746	100.0	100.0
90-120	0	0.0	0.0
90-130	0	0.0	0.0
90-150	0	0.0	0.0
90-180	0	0.0	0.0
0-180	8746	100.0	100.0

AVERAGE LUMINANCE **CANDELA/SQ M**

ANGLE	0.0	20.0	40.0	60.0	80.0	90.0
0	12143	12143	12143	12143	12143	12143
30	16949	17455	18072	17012	17107	17439
40	26317	27301	28017	26818	25262	25333
45	33220	33492	34228	33143	30391	30061
50	45606	43623	42259	40979	36822	35287
55	97535	72733	54574	52949	50321	47167
60	133323	127238	77625	74473	46734	38813
65	128840	149108	123684	64566	13523	8205
70	73050	122016	119532	15147	3126	2685
75	41197	71380	61955	4183	2171	1853
80	12470	25335	12233	2526	1342	1342
85	8806	12423	5189	1573	1415	1415

INDOOR CANDELA PLOT



COEFFICIENTS OF UTILIZATION (%) **ZONAL CAVITY METHOD**

EFFECTIVE FLOOR CAVITY REFLECTANCE = 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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	
1	106	101	96	91	104	98	94	89	94	90	87	90	87	84	86	84	81	79	
2	94	83	75	68	91	81	74	67	78	71	65	74	69	64	71	66	62	60	
3	83	70	60	51	80	68	59	51	65	57	50	62	55	49	59	53	48	45	
R 4	74	59	48	40	71	57	47	39	55	46	39	52	44	38	50	43	38	35	
C 5	66	50	40	31	64	49	39	31	47	38	31	45	37	30	43	36	30	27	
R 6	60	44	33	25	58	43	33	25	41	32	25	39	31	25	37	30	24	22	
7	55	39	28	21	53	38	28	21	36	27	21	34	26	20	33	26	20	18	
8	50	34	25	18	48	34	24	18	32	24	17	31	23	17	30	22	17	15	
9	46	31	22	15	45	30	21	15	29	21	15	28	20	15	27	20	15	13	
10	43	28	19	13	42	28	19	13	27	18	13	25	18	13	25	18	13	11	

RCR = ROOM CAVITY RATIO RC = EFFECTIVE CEILING CAVITY REFLECTANCE RW = WALL REFLECTANCE

THE DATA IN THIS REPORT ARE BASED ON ABSOLUTE MEASUREMENTS.
ANSI/IESNA RP-1 COMPLIANCE IS BASED ON ABSOLUTE MEASUREMENTS.
THIS TEST RUN IN ACCORDANCE WITH CURRENT I.E.S.N.A. PUBLISHED PROCEDURES.

APPROVED BY:_____

Tel 864 678 1000 701 Millennium Blvd. Greenville, SC 29607

LUMINAIRE: KXL-36L-X-5K-5R
KxL Kemlux III Led, Extreme Environment
Kemlux III LED fixture

TEST #7096
DATE: 6/10/2013

CANDELA VALUES

ANGLE	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0
0.0	886	886	886	886	886	886	886	886	886	886	886	886	886	886	886	886	886
2.5	881	880	877	882	883	883	883	882	884	883	883	883	884	884	884	884	887
5.0	866	866	864	869	871	871	870	872	874	873	875	876	876	877	879	879	884
7.5	842	842	841	847	849	851	853	856	860	860	863	866	868	869	874	876	881
10.0	816	817	817	823	826	829	833	839	845	848	854	859	864	869	875	876	881
12.5	793	794	794	800	803	809	813	821	832	838	848	853	862	868	874	875	881
15.0	770	773	774	781	786	793	800	810	825	834	847	853	864	868	876	879	885
17.5	742	745	751	767	782	798	810	824	838	847	859	865	876	879	887	892	899
20.0	725	730	745	770	797	824	843	863	877	885	891	891	898	900	905	912	923
22.5	755	760	779	804	836	866	891	914	930	938	937	927	925	923	922	930	943
25.0	843	844	859	876	901	926	949	975	991	999	992	976	959	949	945	951	965
27.5	956	954	964	978	997	1011	1026	1048	1060	1067	1054	1031	1008	993	984	993	1010
30.0	1071	1073	1079	1090	1103	1114	1129	1135	1142	1139	1126	1100	1075	1059	1053	1060	1081
32.5	1183	1188	1197	1205	1217	1225	1237	1237	1236	1228	1210	1185	1163	1146	1140	1144	1164
35.0	1282	1293	1308	1319	1333	1339	1350	1349	1343	1333	1313	1288	1267	1249	1237	1234	1249
37.5	1380	1385	1404	1419	1435	1450	1466	1458	1456	1446	1433	1405	1384	1357	1340	1327	1333
40.0	1471	1480	1496	1512	1526	1542	1559	1560	1566	1566	1550	1526	1499	1463	1436	1413	1412
42.5	1569	1585	1602	1612	1623	1632	1646	1658	1670	1676	1664	1638	1608	1569	1533	1503	1490
45.0	1714	1716	1729	1731	1728	1732	1737	1749	1766	1775	1771	1740	1710	1671	1633	1591	1568
47.5	1890	1894	1888	1880	1863	1853	1849	1849	1868	1876	1866	1844	1817	1778	1735	1686	1642
50.0	2139	2132	2114	2078	2046	2008	1993	1980	1982	1977	1964	1948	1922	1887	1839	1785	1727
52.5	2956	2863	2726	2498	2326	2219	2173	2143	2115	2091	2075	2060	2045	2016	1980	1923	1848
55.0	4082	4016	3807	3467	3044	2657	2446	2344	2284	2237	2216	2216	2216	2192	2199	2174	2106
57.5	4682	4656	4568	4411	4065	3557	3000	2678	2509	2422	2411	2428	2491	2540	2478	2321	2118
60.0	**4864***	4853	4831	4768	4642	4351	3805	3217	2832	2686	2725	2798	2717	2547	2308	1998	1705
62.5	4703	4724	4754	4749	4785	4739	4426	3865	3318	3108	3020	2787	2509	2168	1778	1388	1130
65.0	3973	4030	4209	4300	4598	4806	4703	4351	3814	3235	2820	2401	1991	1499	1080	649	417
67.5	2683	2658	2892	3347	4057	4568	4656	4326	3610	2903	2231	1727	1221	627	282	147	111
70.0	1823	1795	1910	2331	3045	3786	4044	3671	2983	2213	1479	903	378	147	109	93	78
72.5	1290	1269	1345	1687	2233	2728	3006	2675	2149	1348	658	204	121	90	75	66	56
75.0	778	717	813	1056	1348	1794	2061	1775	1170	537	164	102	79	60	53	48	41
77.5	327	331	393	528	669	945	1264	877	465	159	91	68	53	41	35	31	27
80.0	158	166	185	218	321	421	571	344	155	78	54	42	32	27	22	19	17
82.5	94	93	114	118	166	170	215	111	78	40	32	23	18	15	13	13	13
85.0	56	45	52	67	79	85	91	57	33	19	13	10	10	8	8	9	9
87.5	11	12	14	20	24	29	24	17	11	7	6	5	4	4	4	5	4
90.0	0	0	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1
92.5	0	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	0	0
97.5	0	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	0	0
102.5	0	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	0	0
107.5	0	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	0	0
112.5	0	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	0	0
117.5	0	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	0	0
122.5	0	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	0	0
127.5	0	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	0	0
132.5	0	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	0	0
137.5	0	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	0	0
142.5	0	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	0	0
147.5	0	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	0	0
152.5	0	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	0	0
157.5	0	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	0	0
162.5	0	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	0	0
167.5	0	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	0	0
172.5	0	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	0	0
177.5	0	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	0	0

*MAXIMUM CANDELA VALUE

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KxL Kemlux III Led, Extreme Environment
Kemlux III LED fixture

TEST #7096
DATE: 6/10/2013

CANDELA VALUES

ANGLE	85.0	90.0
0.0	886	886
2.5	888	887
5.0	882	882
7.5	879	877
10.0	881	879
12.5	881	880
15.0	884	884
17.5	899	900
20.0	925	924
22.5	948	947
25.0	976	976
27.5	1026	1030
30.0	1100	1102
32.5	1185	1183
35.0	1268	1266
37.5	1346	1348
40.0	1419	1416
42.5	1490	1483
45.0	1558	1551
47.5	1619	1599
50.0	1687	1655
52.5	1783	1755
55.0	2021	1974
57.5	1921	1831
60.0	1494	1416
62.5	955	873
65.0	297	253
67.5	99	99
70.0	67	67
72.5	47	47
75.0	34	35
77.5	24	25
80.0	16	17
82.5	12	13
85.0	9	9
87.5	4	4
90.0	1	1
92.5	0	0
95.0	0	0
97.5	0	0
100.0	0	0
102.5	0	0
105.0	0	0
107.5	0	0
110.0	0	0
112.5	0	0
115.0	0	0
117.5	0	0
120.0	0	0
122.5	0	0
125.0	0	0
127.5	0	0
130.0	0	0
132.5	0	0
135.0	0	0
137.5	0	0
140.0	0	0
142.5	0	0
145.0	0	0
147.5	0	0
150.0	0	0
152.5	0	0
155.0	0	0
157.5	0	0
160.0	0	0
162.5	0	0
165.0	0	0
167.5	0	0
170.0	0	0
172.5	0	0
175.0	0	0
177.5	0	0
180.0	0	0

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