



LM-79 Distribution Test Report (Luminaire)

Total Luminous Flux, Luminous Intensity Distribution and
Electrical Characteristics of Customer Submitted Luminaire

CURTIS-STRAUS

Report No.: PHM-RPT-180309-16
Date: March 09, 2018

LM-79 Distribution Testing: Total Luminous Flux, Luminous Intensity Distribution, Electrical Characteristics and Efficacy.

Report Prepared for:

Vantage Lighting
181 Narragansett Park Drive
East Providence, RI 02916
USA
Telephone: (860) 564-4512

Description : VGCSQ66VEFLED
Model Tested: VGCSQ66VEFLEDU-3035K
WO/CS#: S0461

Report Issue Date: March 9, 2018
Date of Test(s): March 5- March 9, 2018
Total Number of Pages : 9 (including this page)

Report Reviewed by:

Mark Razvi
Photometric Lab Supervisor
Curtis-Straus



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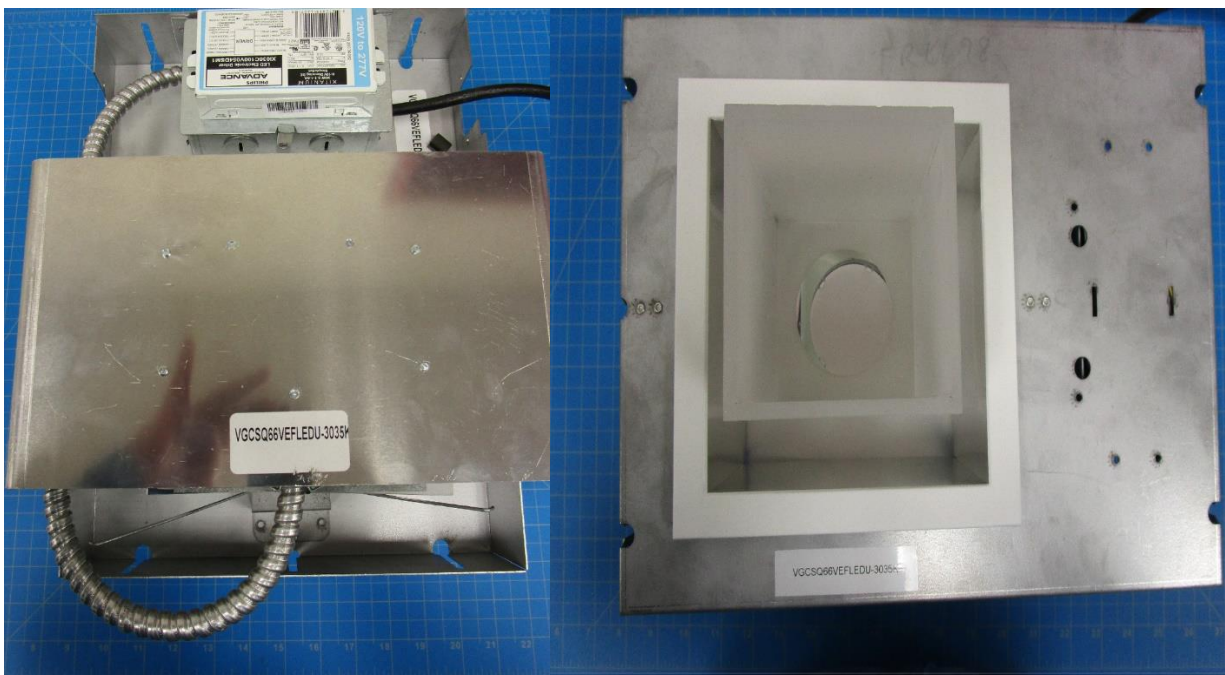
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DETAILED PRODUCT DESCRIPTION

Model #	VGCSQ66VEFLEDU-3035K
CS/WO#	S0461
Description	VGCSQ66VEFLED
Supply Voltage	120VAC

Pictures:





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Curtis-Straus Photometric Testing Information

Photometric Testing is performed in accordance with the procedures outlined in LM-79-2008 . The test sample is evaluated for photometric and electrical characteristics using the equipment listed below.

Curtis-Straus Environmental Testing Info

Curtis-Straus testing laboratory temperature during testing: 25.9 °C .

LIST OF EQUIPMENT USED:

Description	Model No.	Serial No.	Asset No	Cal. Date	Cal. Due
Yokogawa Power Meter	WT-310E	C2SK10001V	2360	04-21-17	04-21-18
Chroma AC Power Supply	61603	616030001283	2355	04-21-17	04-21-18
LabSphere Type-C GoniometerSystem	PM-150-140	022172153	AA-30058-195	02-09-18	03-09-18
Digital Thermometer	4627	160739886	2392	09-07-16	09-07-18

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LM-79-2008 Distribution Test Data

Model # VGCSQ66VEFLEDU-3035K
CS/WO# S0461
Description VGCSQ66VEFLEDU
Supply Voltage 120VAC

Result of Tests

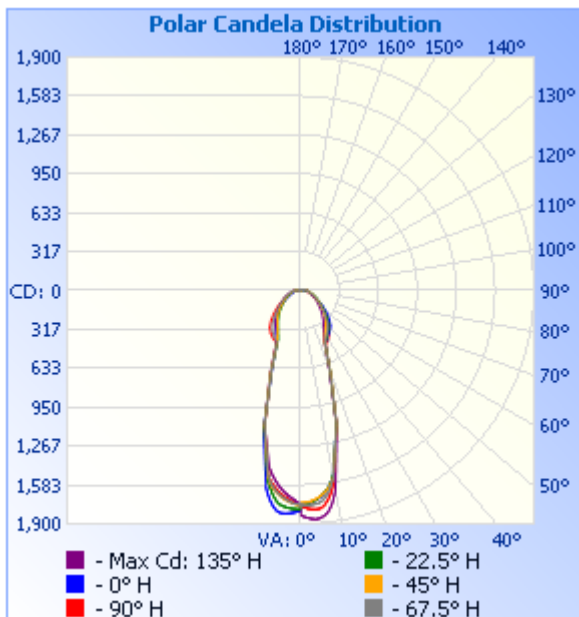
Photometric and Electrical Test Data

Input Voltage: 120 VAC

Base Orientation: Base Up

Lumens (lm)	Watts (W)	Volts (VAC)	Amps (A)	Efficacy	PF	Ithd (%)
1732.78	36.60	120.24	0.31	47.34	0.9959	0.12

Luminous Intensity Summary: Cd



Illumination Cone of Light
Mounting Ht: 10 ft.

Distance	Illuminance at a Distance	
	Center Beam fc	Beam Width
1.7ft	610 fc	1.1 ft 1.0 ft
3.3ft	162 fc	2.0 ft 2.0 ft
5.0ft	70.5 fc	3.1 ft 3.1 ft
6.7ft	39.2 fc	4.1 ft 4.1 ft
8.3ft	25.6 fc	5.1 ft 5.1 ft
10.0ft	17.6 fc	6.2 ft 6.2 ft

■ Vert. Spread: 34.3°
■ Horiz. Spread: 34.2°



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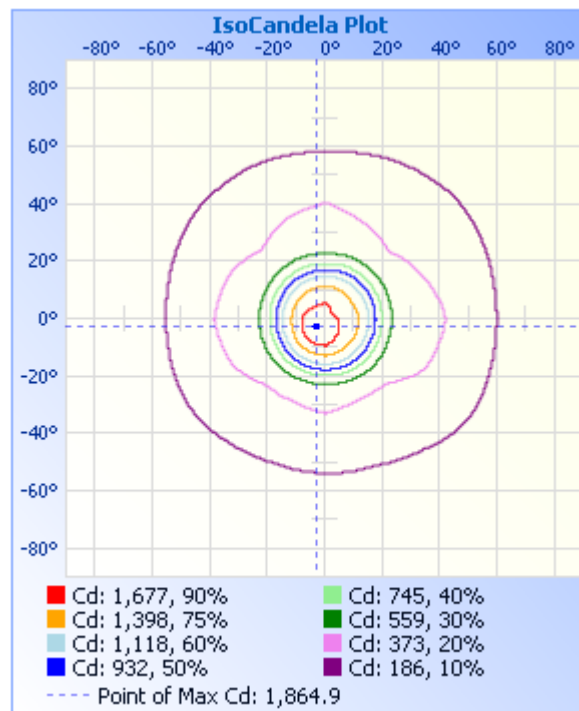
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IsoCandela Plot



Zonal Lumens Summary

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	696.0	40.2%
0-40	927.3	53.5%
0-60	1,321.7	76.3%
60-90	295.5	17.1%
70-100	209.4	12.1%
90-120	89.3	5.2%
0-90	1,617.2	93.3%
90-180	115.6	6.7%
0-180	1,732.8	100%

Lumens per Zone

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	159.6	9.2%	90-100	45.8	2.6%
10-20	305.7	17.6%	100-110	27.8	1.6%
20-30	230.7	13.3%	110-120	15.7	0.9%
30-40	231.2	13.3%	120-130	9.2	0.5%
40-50	218.3	12.6%	130-140	6.0	0.3%
50-60	176.2	10.2%	140-150	4.8	0.3%
60-70	132.0	7.6%	150-160	3.6	0.2%
70-80	96.2	5.6%	160-170	2.1	0.1%
80-90	67.4	3.9%	170-180	0.7	0%



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Candela Table - Type C

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	360
0	1762	1762	1762	1762	1762	1762	1762	1762	1762	1762	1762	1762	1762	1762	1762	1762	1762
0.1	1758	1745	1728	1740	1754	1783	1830	1820	1793	1778	1747	1740	1742	1722	1737	1767	1762
0.2	1757	1744	1728	1740	1756	1784	1831	1821	1794	1778	1747	1740	1741	1721	1735	1766	1762
0.3	1756	1744	1728	1741	1757	1786	1833	1823	1795	1778	1747	1740	1740	1719	1733	1764	1761
0.4	1755	1743	1727	1742	1758	1788	1834	1824	1796	1778	1747	1739	1739	1718	1731	1762	1760
0.5	1753	1743	1727	1742	1759	1789	1835	1825	1797	1778	1746	1739	1738	1716	1729	1760	1759
0.6	1752	1743	1727	1743	1760	1791	1837	1826	1798	1778	1745	1739	1737	1715	1727	1758	1758
0.7	1751	1742	1727	1744	1761	1792	1838	1828	1799	1778	1744	1739	1735	1713	1725	1756	1757
0.8	1750	1742	1726	1744	1763	1794	1839	1829	1800	1778	1744	1738	1734	1712	1723	1755	1756
0.9	1748	1741	1726	1745	1764	1796	1840	1830	1801	1778	1743	1738	1733	1711	1721	1753	1755
1	1747	1741	1726	1746	1765	1797	1842	1831	1801	1778	1742	1738	1732	1709	1719	1751	1755
1.1	1746	1740	1725	1746	1766	1798	1843	1832	1802	1778	1742	1737	1731	1708	1717	1749	1754
1.2	1745	1740	1725	1747	1767	1799	1844	1833	1803	1778	1741	1737	1730	1706	1715	1747	1753
1.3	1743	1739	1724	1748	1768	1800	1845	1834	1804	1778	1740	1737	1729	1705	1713	1745	1752
1.4	1742	1738	1724	1748	1769	1801	1847	1835	1805	1778	1739	1737	1728	1703	1711	1744	1751
1.5	1741	1737	1724	1748	1771	1802	1848	1836	1805	1777	1739	1736	1727	1702	1709	1742	1750
1.6	1739	1736	1723	1748	1772	1803	1849	1837	1806	1777	1738	1736	1726	1701	1707	1740	1748
1.7	1738	1736	1723	1748	1773	1804	1850	1838	1807	1777	1737	1735	1725	1699	1705	1738	1747
1.8	1737	1735	1722	1748	1774	1805	1851	1839	1808	1777	1736	1734	1723	1698	1703	1736	1746
1.9	1736	1734	1722	1747	1775	1805	1852	1840	1808	1777	1735	1732	1722	1696	1701	1734	1745
2	1734	1733	1721	1747	1776	1806	1853	1841	1809	1777	1734	1731	1721	1695	1698	1733	1744
2.1	1733	1732	1720	1747	1777	1807	1853	1841	1810	1776	1733	1730	1719	1693	1696	1731	1743
2.2	1732	1732	1719	1747	1777	1808	1854	1842	1810	1776	1732	1729	1718	1692	1694	1729	1742
2.3	1731	1731	1719	1747	1778	1809	1855	1843	1811	1776	1731	1728	1717	1690	1692	1727	1740
2.4	1729	1729	1718	1747	1778	1810	1856	1844	1811	1776	1730	1727	1715	1689	1690	1725	1739
2.5	1728	1728	1717	1747	1779	1810	1857	1845	1812	1775	1729	1725	1714	1688	1688	1723	1738
2.6	1727	1727	1717	1746	1779	1811	1858	1846	1813	1774	1728	1724	1713	1686	1686	1722	1737
2.7	1726	1726	1716	1746	1780	1812	1859	1846	1813	1774	1727	1723	1711	1685	1684	1720	1735
2.8	1724	1725	1715	1746	1780	1813	1860	1847	1814	1773	1725	1722	1710	1683	1682	1718	1734
2.9	1723	1724	1714	1745	1781	1814	1860	1848	1814	1773	1724	1720	1708	1681	1680	1716	1733
3	1722	1723	1713	1745	1782	1814	1861	1849	1815	1772	1723	1719	1707	1679	1678	1714	1731
3.1	1720	1721	1712	1745	1782	1815	1861	1850	1815	1772	1722	1717	1705	1677	1676	1712	1730
3.2	1719	1720	1711	1744	1782	1816	1862	1850	1815	1771	1720	1716	1704	1674	1674	1711	1728
3.3	1718	1719	1710	1744	1782	1817	1862	1851	1816	1771	1719	1714	1702	1672	1672	1709	1727
3.4	1717	1718	1709	1744	1783	1817	1863	1852	1816	1770	1718	1713	1701	1670	1670	1707	1726
3.5	1715	1716	1708	1743	1783	1817	1863	1852	1817	1770	1717	1711	1699	1668	1668	1705	1724



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3.6	1714	1715	1707	1743	1783	1817	1864	1853	1817	1769	1716	1710	1697	1666	1666	1703	1723
3.7	1713	1714	1706	1742	1783	1817	1865	1853	1817	1768	1714	1708	1696	1664	1664	1702	1721
3.8	1712	1712	1705	1742	1783	1817	1865	1854	1818	1767	1713	1707	1694	1662	1662	1700	1719
3.9	1710	1711	1704	1741	1783	1818	1864	1854	1818	1766	1711	1705	1693	1660	1660	1698	1718
4	1709	1709	1703	1741	1784	1818	1864	1855	1818	1766	1710	1703	1691	1657	1658	1696	1716
4.1	1708	1708	1701	1740	1784	1818	1863	1855	1818	1765	1708	1702	1689	1655	1656	1694	1714
4.2	1707	1707	1700	1740	1784	1818	1863	1856	1818	1764	1707	1700	1687	1653	1654	1692	1712
4.3	1705	1705	1698	1739	1784	1818	1862	1857	1818	1763	1705	1698	1685	1650	1652	1691	1711
4.4	1704	1704	1697	1739	1783	1818	1862	1857	1818	1762	1704	1697	1683	1648	1650	1689	1709
4.5	1703	1702	1695	1738	1783	1817	1861	1856	1818	1762	1702	1695	1681	1646	1648	1687	1707
4.6	1702	1700	1694	1738	1782	1815	1861	1855	1818	1761	1700	1693	1679	1643	1646	1685	1706
4.7	1700	1699	1693	1737	1782	1813	1860	1855	1818	1759	1699	1691	1677	1641	1644	1683	1704
4.8	1699	1697	1691	1736	1781	1811	1860	1854	1818	1758	1697	1690	1675	1639	1641	1681	1701
4.9	1698	1695	1690	1734	1781	1810	1859	1853	1818	1757	1695	1688	1673	1637	1639	1680	1699
5	1696	1693	1688	1733	1780	1808	1858	1853	1818	1756	1694	1686	1671	1634	1636	1678	1697
5.1	1695	1691	1687	1732	1780	1806	1856	1852	1817	1754	1692	1684	1669	1632	1633	1676	1695
5.2	1694	1689	1685	1730	1780	1804	1854	1851	1816	1753	1690	1682	1667	1629	1630	1674	1693
5.3	1692	1687	1683	1729	1779	1803	1853	1851	1815	1752	1688	1680	1665	1626	1627	1671	1691
5.4	1689	1685	1681	1728	1778	1801	1851	1850	1814	1751	1686	1678	1663	1624	1625	1669	1689
5.5	1687	1683	1679	1726	1775	1799	1850	1849	1813	1749	1684	1676	1661	1621	1622	1666	1687
5.6	1685	1681	1677	1725	1773	1797	1848	1847	1811	1748	1682	1674	1659	1619	1619	1663	1685
5.7	1682	1679	1676	1724	1771	1794	1846	1844	1810	1747	1680	1671	1657	1616	1616	1660	1682
5.8	1680	1677	1674	1722	1769	1791	1845	1842	1809	1744	1678	1669	1654	1613	1614	1658	1680
5.9	1678	1674	1672	1720	1767	1788	1843	1839	1808	1741	1676	1667	1652	1611	1611	1655	1678
6	1675	1672	1670	1717	1764	1785	1842	1836	1806	1739	1674	1665	1650	1608	1608	1652	1675
6.1	1673	1670	1668	1715	1762	1783	1839	1834	1805	1736	1671	1663	1648	1605	1605	1650	1673
6.2	1671	1668	1666	1712	1760	1780	1837	1831	1804	1733	1669	1660	1646	1602	1602	1647	1670
6.3	1669	1665	1664	1709	1758	1777	1834	1829	1801	1730	1667	1658	1643	1600	1598	1644	1667
6.4	1666	1663	1662	1706	1756	1774	1832	1826	1798	1727	1664	1656	1641	1597	1595	1641	1665
6.5	1663	1661	1660	1703	1753	1771	1829	1823	1794	1724	1662	1653	1638	1594	1592	1638	1662
6.6	1660	1658	1658	1700	1749	1769	1827	1821	1791	1722	1660	1651	1635	1591	1589	1635	1660
6.7	1657	1656	1655	1697	1745	1766	1824	1817	1788	1719	1657	1648	1633	1588	1586	1632	1657
6.8	1654	1654	1653	1694	1742	1761	1822	1813	1785	1716	1655	1646	1630	1585	1583	1629	1655
6.9	1652	1651	1651	1692	1738	1757	1819	1809	1782	1712	1652	1643	1627	1582	1580	1626	1652
7	1649	1648	1649	1688	1734	1752	1816	1805	1779	1708	1650	1641	1625	1579	1577	1623	1649
7.1	1646	1645	1647	1684	1731	1748	1814	1801	1776	1703	1648	1638	1622	1576	1574	1620	1646
7.2	1643	1643	1645	1680	1727	1743	1811	1797	1772	1699	1645	1636	1619	1573	1570	1617	1643
7.3	1640	1640	1643	1676	1723	1739	1806	1793	1769	1695	1642	1633	1617	1570	1567	1613	1640
7.4	1637	1637	1640	1672	1720	1735	1801	1789	1765	1691	1640	1630	1614	1567	1563	1610	1637
7.5	1634	1634	1637	1669	1716	1730	1797	1785	1760	1687	1637	1627	1611	1563	1560	1607	1634



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7.6	1631	1632	1634	1665	1712	1726	1792	1780	1756	1683	1634	1624	1608	1560	1557	1604	1631
7.7	1628	1629	1631	1661	1707	1721	1787	1776	1751	1678	1632	1622	1605	1557	1553	1600	1628
7.8	1625	1626	1628	1657	1702	1717	1783	1771	1747	1674	1629	1619	1602	1554	1550	1597	1625
7.9	1622	1623	1625	1653	1697	1711	1778	1766	1742	1670	1627	1616	1599	1551	1546	1593	1622
8	1618	1619	1622	1649	1692	1706	1773	1761	1737	1665	1624	1613	1597	1547	1543	1590	1619
8.1	1615	1615	1619	1645	1687	1700	1769	1756	1733	1660	1621	1610	1594	1544	1540	1586	1616
8.2	1612	1611	1616	1639	1682	1695	1764	1751	1728	1655	1619	1607	1591	1541	1536	1583	1612
8.3	1609	1607	1613	1634	1677	1689	1759	1746	1724	1650	1615	1605	1588	1538	1532	1579	1608
8.4	1605	1603	1611	1629	1671	1684	1753	1741	1719	1645	1610	1600	1585	1534	1528	1576	1604
8.5	1602	1598	1607	1624	1666	1678	1746	1735	1714	1640	1606	1596	1582	1531	1525	1572	1600
8.6	1598	1594	1602	1619	1661	1673	1739	1730	1708	1635	1602	1592	1578	1527	1521	1569	1596
8.7	1594	1590	1598	1614	1656	1667	1733	1725	1703	1630	1598	1587	1575	1524	1517	1564	1593
8.8	1589	1586	1594	1608	1650	1662	1726	1720	1697	1625	1594	1583	1571	1520	1513	1559	1589
8.9	1584	1582	1589	1603	1643	1656	1720	1714	1692	1620	1590	1578	1567	1516	1510	1555	1585
9	1580	1578	1585	1598	1637	1650	1713	1708	1686	1615	1585	1574	1564	1513	1506	1550	1581
9.1	1575	1572	1580	1593	1630	1643	1707	1701	1681	1609	1581	1569	1560	1509	1502	1546	1577
9.2	1571	1567	1576	1588	1624	1636	1700	1695	1675	1603	1577	1565	1557	1506	1498	1541	1572
9.3	1566	1561	1571	1581	1617	1629	1694	1688	1669	1598	1573	1561	1553	1502	1494	1536	1567
9.4	1561	1556	1567	1575	1610	1622	1687	1681	1664	1592	1567	1556	1549	1499	1490	1532	1561
9.5	1557	1550	1563	1569	1604	1616	1679	1675	1658	1586	1561	1551	1546	1495	1485	1527	1555
9.6	1552	1545	1558	1563	1597	1609	1670	1668	1652	1580	1555	1545	1542	1490	1480	1523	1550
9.7	1547	1539	1552	1557	1591	1602	1662	1662	1645	1574	1550	1539	1536	1486	1476	1518	1544
9.8	1541	1534	1546	1550	1584	1595	1653	1655	1638	1569	1544	1533	1530	1481	1471	1512	1538
9.9	1535	1529	1540	1544	1577	1588	1645	1649	1630	1563	1538	1527	1525	1476	1467	1506	1532
10	1528	1523	1534	1538	1569	1581	1636	1642	1623	1557	1532	1521	1519	1472	1462	1500	1527
15	1125	1125	1132	1128	1123	1136	1145	1160	1171	1147	1134	1127	1130	1130	1137	1126	1123
20	691	704	711	701	688	689	698	680	684	698	715	702	705	724	725	725	688
25	474	475	463	466	486	468	449	437	447	433	451	458	468	465	470	471	472
30	437	432	394	426	450	427	377	377	395	371	372	431	449	415	387	421	437
35	410	393	351	385	410	380	324	327	352	324	331	400	424	383	350	381	410
40	378	352	316	339	361	327	281	281	309	283	295	357	391	345	311	344	378
45	331	303	276	286	301	272	239	240	264	242	257	304	340	302	278	299	331
50	276	253	233	235	244	222	201	202	218	206	217	253	282	256	242	254	275
55	221	209	194	192	192	182	169	169	175	174	182	209	229	213	207	213	221
60	174	172	163	157	148	150	142	141	138	145	154	174	183	178	175	178	173
65	134	142	136	130	112	124	120	118	106	121	130	145	143	149	148	149	134
70	105	118	113	107	91	104	105	105	86	102	110	121	111	124	124	124	105
75	85	97	95	88	74	86	93	85	70	84	92	100	88	103	104	105	85
80	68	78	78	71	60	72	73	69	57	71	76	83	71	84	86	85	68
85	54	63	63	61	53	66	66	58	46	56	61	66	56	69	70	72	54



LM-79 Distribution Test Report (Luminaire)

Total Luminous Flux, Luminous Intensity Distribution and Electrical Characteristics of Customer Submitted Luminaire

Report No.: PHM-RPT-180309-16

Date: March 09, 2018

CURTIS-STRAUS

90	42	51	57	56	47	58	58	51	38	46	50	51	44	54	57	54	42
95	34	44	48	47	42	50	50	45	33	39	39	38	34	40	44	44	34
100	28	36	41	40	37	42	41	38	28	32	28	23	22	25	31	37	28
105	23	29	33	33	33	36	32	30	24	26	20	13	15	14	21	31	23
110	19	23	24	27	28	29	25	25	20	20	14	7	9	7	13	26	19
115	16	18	18	22	24	23	19	20	16	16	10	5	5	5	9	21	16
120	12	13	12	18	20	19	14	16	13	12	7	5	5	5	6	19	12
125	9	10	9	14	17	16	12	13	10	9	5	5	5	5	6	17	9
130	7	7	9	10	14	13	12	10	8	6	5	5	5	5	5	8	7
135	6	7	9	10	12	13	11	9	6	5	5	5	5	5	5	7	5
140	6	7	8	11	12	12	11	9	6	6	6	6	6	5	5	7	6
145	6	7	9	11	12	12	10	8	6	6	6	6	6	6	6	7	6
150	6	7	9	11	11	11	10	8	7	6	6	6	6	6	6	7	6
155	7	8	9	10	11	11	9	8	7	6	6	6	6	6	6	7	7
160	7	8	9	10	10	10	9	7	7	6	6	6	7	6	7	6	7
165	7	8	8	9	9	9	8	7	7	6	6	6	7	6	6	7	7
170	7	7	8	8	8	8	8	7	7	6	6	6	7	7	6	7	7
175	7	7	7	7	8	8	7	7	7	7	7	7	7	7	7	7	7
180	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7