

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P821180

Luminaire Tested: **TT-D5-830-24VDC-MQ-UPL**

Issue Date: 7/23/2020

Test Information

Test Method: LM-79-08
Report Number: P821180
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G2-2002-677-2) AND
Test Lab: INNOVATION CENTER
Issue Date: 7/23/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TT-D5-830-24VDC-MQ-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
3000K, 80 CRI LEDS AND MEDIUM DISTRIBUTION
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

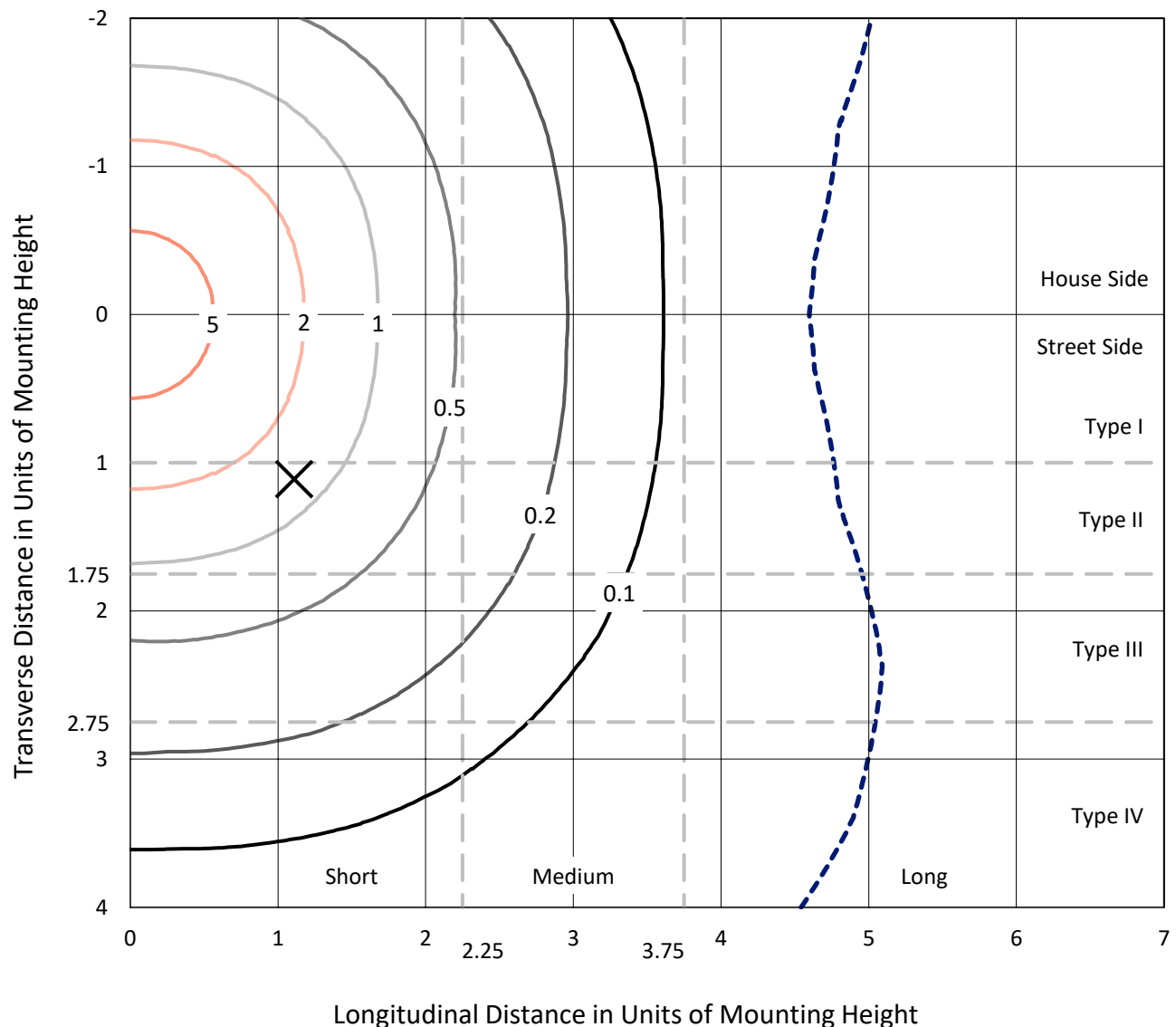
Lumens per Lamp: N/A
Luminaire Lumens: 9803.7 lumens
Efficiency: N/A
Efficacy: 134.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short
BUG Rating: B3 - U4 - G2

Input Watts (W): 73
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

REPORT NUMBER: P821180
 CATALOG NUMBER: TT-D5-830-24VDC-MQ-UPL

Iso-Footcandle Lines of Horizontal Illumination

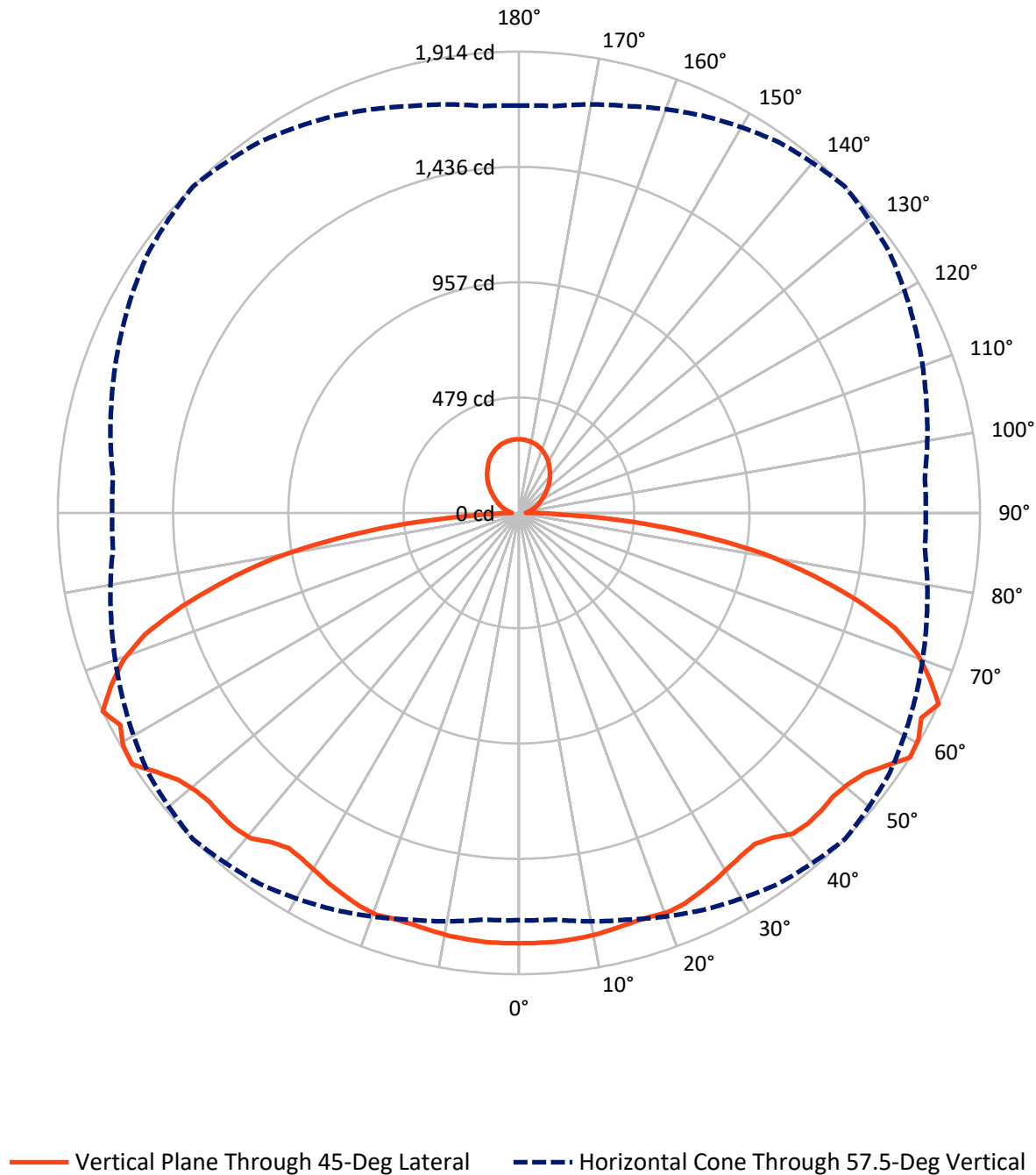
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 7.9 fc
 Type V - Short - N/A

REPORT NUMBER: P821180
CATALOG NUMBER: TT-D5-830-24VDC-MQ-UPL

Luminous Intensity Polar Plot



REPORT NUMBER: P821180

CATALOG NUMBER: TT-D5-830-24VDC-MQ-UPL

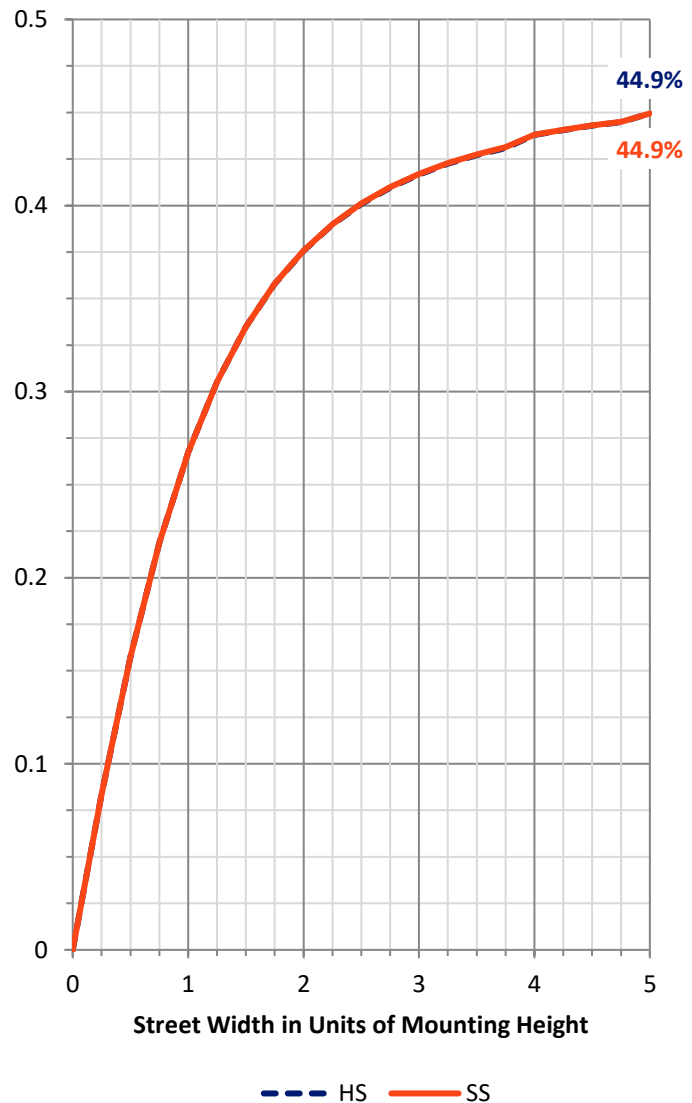
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4486.0	415.9	4901.9
	% Fixture	45.8	4.2	50.0
Street Side	Lumens	4486.0	415.9	4901.9
	% Fixture	45.8	4.2	50.0
Total	Lumens	8972.0	831.7	9803.7
	% Fixture	91.5	8.5	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.2	1.7
10°-20°	500.6	5.1
20°-30°	804.4	8.2
30°-40°	1062.0	10.8
40°-50°	1328.7	13.6
50°-60°	1580.3	16.1
60°-70°	1714.0	17.5
70°-80°	1364.3	13.9
80°-90°	447.5	4.6
90°-100°	42.6	0.4
100°-110°	66.0	0.7
110°-120°	91.9	0.9
120°-130°	119.0	1.2
130°-140°	138.7	1.4
140°-150°	140.5	1.4
150°-160°	121.9	1.2
160°-170°	82.2	0.8
170°-180°	28.9	0.3
0°-90°	8972.0	91.5
0°-180°	9803.7	100.0

Coefficient of Utilization



REPORT NUMBER: P821180

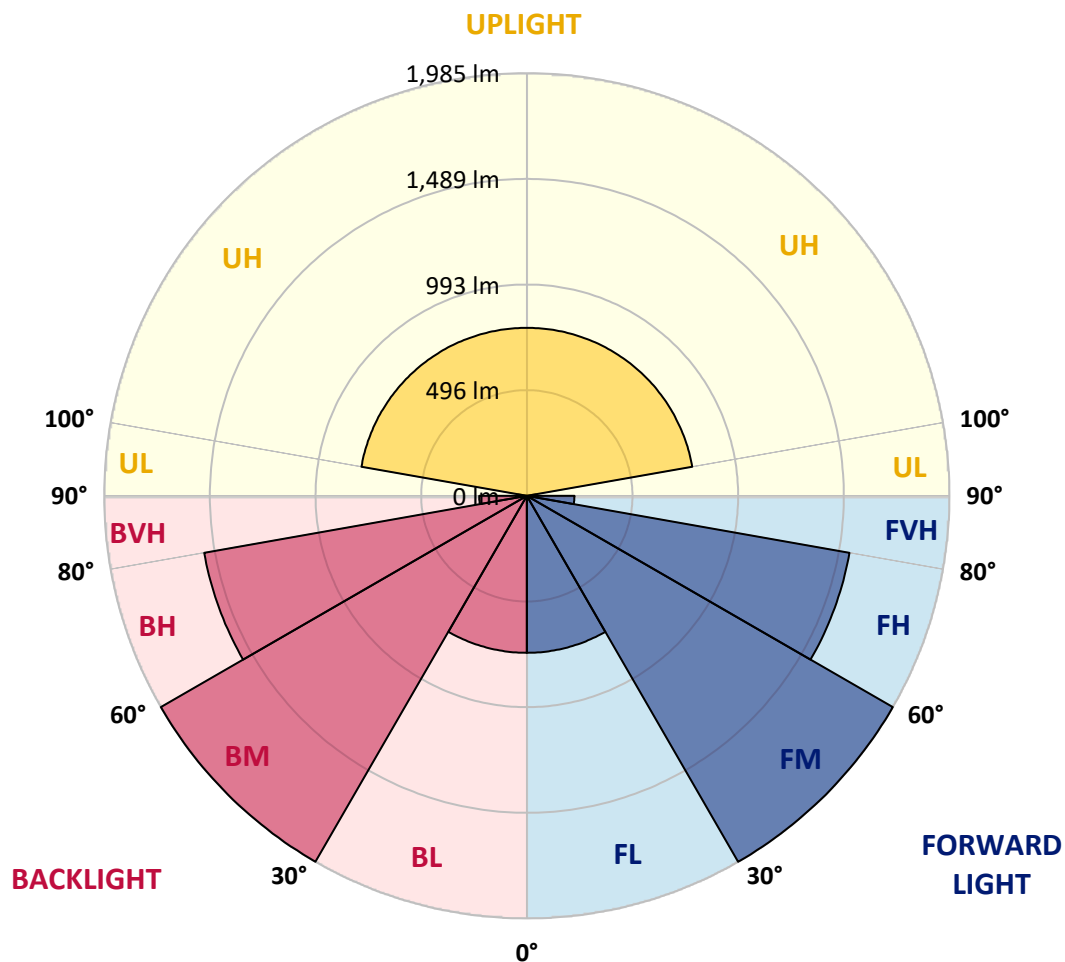
CATALOG NUMBER: TT-D5-830-24VDC-MQ-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	737.6	7.5			
FM	(30°-60°)	1985.5	20.3			
FH	(60°-80°)	1539.2	15.7			G1/1800
FVH	(80°-90°)	223.7	2.3			G2/225
BL	(0°-30°)	737.6	7.5	B2/1000		
BM	(30°-60°)	1985.5	20.3	B2/2500		
BH	(60°-80°)	1539.2	15.7	B3/2500		G1/1800
BVH	(80°-90°)	223.7	2.3			G2/225
UL	(90°-100°)	42.6	0.4		U2/50	
UH	(100°-180°)	789.1	8.0		U4/1000	

BUG Rating: B3-U4-G2

Type V Short





REPORT NUMBER: P821180

CATALOG NUMBER: TT-D5-830-24VDC-MQ-UPL

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1786.1	1786.1	1786.1	1786.1	1786.1	1786.1	1786.1	1786.1	1786.1	1786.1	1786.1
2.5°	1788.8	1787.5	1788.8	1787.5	1787.5	1786.1	1787.5	1787.5	1787.5	1787.5	1787.5
5°	1787.5	1786.1	1786.1	1787.5	1786.1	1786.1	1786.1	1786.1	1786.1	1786.1	1786.1
7.5°	1782.1	1782.1	1783.5	1782.1	1782.1	1782.1	1782.1	1782.1	1782.1	1783.5	1783.5
10°	1778.1	1776.8	1778.1	1778.1	1776.8	1778.1	1776.8	1778.1	1778.1	1778.1	1778.1
12.5°	1772.8	1771.5	1772.8	1772.8	1771.5	1770.1	1771.5	1771.5	1772.8	1772.8	1772.8
15°	1763.5	1763.5	1766.1	1764.8	1764.8	1763.5	1766.1	1764.8	1763.5	1764.8	1764.8
17.5°	1756.8	1756.8	1759.5	1762.1	1762.1	1762.1	1762.1	1760.8	1758.1	1759.5	1756.8
20°	1758.1	1759.5	1760.8	1764.8	1767.5	1768.8	1768.8	1764.8	1760.8	1762.1	1760.8
22.5°	1754.1	1752.8	1754.1	1756.8	1760.8	1760.8	1760.8	1755.5	1754.1	1752.8	1752.8
25°	1738.1	1738.1	1740.8	1743.5	1746.1	1744.8	1746.1	1743.5	1740.8	1738.1	1738.1
27.5°	1719.5	1719.5	1723.5	1726.1	1728.8	1728.8	1727.5	1724.8	1723.5	1720.8	1719.5
30°	1700.8	1700.8	1704.8	1707.4	1711.4	1710.1	1710.1	1706.1	1702.1	1699.4	1699.4
32.5°	1680.8	1679.4	1683.4	1690.1	1695.4	1695.4	1695.4	1687.4	1682.1	1679.4	1678.1
35°	1663.4	1663.4	1668.8	1680.8	1687.4	1687.4	1684.8	1679.4	1667.4	1663.4	1663.4
37.5°	1658.1	1662.1	1676.8	1694.1	1707.4	1710.1	1706.1	1691.4	1675.4	1663.4	1659.4
40°	1675.4	1679.4	1698.1	1726.1	1746.1	1750.1	1746.1	1724.8	1696.8	1678.1	1676.8
42.5°	1678.1	1680.8	1703.4	1735.5	1754.1	1760.8	1754.1	1732.8	1702.1	1679.4	1678.1
45°	1668.8	1670.1	1696.8	1730.1	1752.8	1760.8	1752.8	1727.5	1695.4	1670.1	1668.8
47.5°	1656.8	1659.4	1688.8	1723.5	1751.5	1756.8	1750.1	1722.1	1686.1	1660.8	1656.8
50°	1647.4	1655.4	1682.1	1720.8	1754.1	1770.1	1754.1	1716.8	1680.8	1652.8	1647.4
52.5°	1652.8	1655.4	1690.1	1744.8	1790.2	1796.8	1788.8	1744.8	1687.4	1655.4	1651.4
55°	1668.8	1680.8	1718.1	1796.8	1838.2	1850.2	1832.8	1794.2	1719.5	1680.8	1668.8
57.5°	1690.1	1694.1	1747.5	1816.8	1878.2	1914.2	1879.5	1815.5	1751.5	1691.4	1688.8
60°	1672.8	1660.8	1727.5	1808.8	1891.5	1906.2	1886.2	1810.2	1724.8	1659.4	1671.4
62.5°	1626.1	1634.1	1688.8	1800.8	1858.2	1874.2	1852.8	1800.8	1686.1	1640.7	1622.1
65°	1588.7	1636.7	1696.8	1776.8	1868.9	1914.2	1870.2	1774.1	1699.4	1628.7	1584.7
67.5°	1536.7	1546.0	1635.4	1734.1	1816.8	1839.5	1815.5	1735.5	1627.4	1539.4	1546.0
70°	1448.7	1435.3	1526.0	1640.7	1719.5	1755.5	1722.1	1635.4	1522.0	1432.7	1444.7
72.5°	1303.3	1311.3	1395.3	1516.7	1598.1	1632.7	1599.4	1507.4	1392.6	1319.3	1311.3
75°	1151.2	1160.5	1241.9	1352.6	1435.3	1450.0	1440.7	1345.9	1244.6	1159.2	1151.2
77.5°	977.8	987.1	1053.8	1175.2	1224.6	1247.2	1227.2	1181.9	1051.1	985.8	975.1
80°	785.7	783.0	841.7	945.8	1007.1	1032.5	1007.1	948.4	839.0	788.4	771.0
82.5°	561.6	564.3	618.9	691.0	749.7	757.7	745.7	697.7	613.6	570.9	546.9
85°	312.1	324.1	364.2	417.5	456.2	469.5	449.5	404.2	362.8	329.5	318.8
87.5°	74.7	81.4	94.7	120.1	134.7	148.1	134.7	125.4	89.4	81.4	74.7
90°	30.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1
92.5°	34.8	34.2	34.2	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8
95°	39.4	39.4	39.4	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5
97.5°	44.6	44.6	44.6	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2
100°	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8
102.5°	55.9	55.9	55.9	55.9	55.9	55.9	55.9	56.4	55.9	55.9	55.9
105°	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.9	62.0	62.0	62.0
107.5°	68.6	68.6	69.0	69.0	69.0	69.0	69.0	69.5	69.0	69.0	69.0
110°	75.1	75.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1

REPORT NUMBER: P821180

CATALOG NUMBER: TT-D5-830-24VDC-MQ-UPL

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	83.1	83.1	84.0	84.0	84.0	84.0	84.6	84.6	84.0	84.0	84.0
115°	91.1	91.1	92.0	92.0	92.0	92.0	93.0	93.0	92.0	92.0	92.0
117.5°	100.5	100.5	101.0	101.4	101.4	101.4	102.4	102.4	101.4	101.4	101.4
120°	109.9	109.9	109.9	110.8	110.8	110.8	111.8	111.8	110.8	110.8	110.8
122.5°	120.7	120.7	121.2	121.6	121.6	121.6	122.6	122.6	122.1	122.1	121.6
125°	131.5	131.5	132.4	132.4	132.4	132.4	133.4	133.4	133.4	133.4	132.4
127.5°	143.2	143.2	144.2	144.2	144.2	144.2	145.1	145.1	145.1	145.1	144.2
130°	155.0	155.0	155.9	155.9	155.9	155.9	156.8	156.8	156.8	156.8	155.9
132.5°	167.2	167.2	167.6	167.6	167.6	168.1	168.6	168.6	168.6	168.6	168.1
135°	179.4	179.4	179.4	179.4	179.4	180.3	180.3	180.3	180.3	180.3	180.3
137.5°	191.2	190.6	191.2	190.6	191.2	191.6	191.6	191.6	191.6	191.6	191.6
140°	202.9	201.9	202.9	201.9	202.9	202.9	202.9	202.9	202.9	202.9	202.9
142.5°	213.7	213.2	213.7	212.7	213.7	213.7	213.7	213.7	213.7	213.7	213.7
145°	224.5	224.5	224.5	223.5	224.5	224.5	224.5	224.5	224.5	224.5	224.5
147.5°	235.8	235.3	235.8	234.8	235.8	235.8	235.8	235.8	235.8	235.8	235.8
150°	247.0	246.1	247.0	246.1	247.0	247.0	247.0	247.0	247.0	247.0	247.0
152.5°	256.0	255.5	256.4	255.5	256.0	256.0	256.4	256.0	256.0	256.0	256.0
155°	264.9	264.9	265.8	264.9	264.9	264.9	265.8	264.9	264.9	264.9	264.9
157.5°	272.4	272.4	273.3	272.4	272.4	272.4	273.3	272.4	272.4	272.4	272.4
160°	279.9	279.9	280.8	279.9	279.9	279.9	280.8	279.9	279.9	279.9	279.9
162.5°	286.0	286.0	286.9	286.0	286.0	286.0	286.9	286.0	286.0	286.0	286.0
165°	292.1	292.1	293.0	292.1	292.1	292.1	293.0	292.1	292.1	292.1	292.1
167.5°	295.8	295.8	296.8	295.8	295.8	295.8	296.8	295.8	295.8	295.8	295.8
170°	299.6	299.6	300.5	299.6	299.6	299.6	300.5	299.6	299.6	299.6	299.6
172.5°	302.0	302.0	302.8	302.0	302.4	302.0	302.8	302.0	302.0	302.0	302.0
175°	304.3	304.3	305.2	304.3	305.2	304.3	305.2	304.3	304.3	304.3	304.3
177.5°	305.2	305.2	305.7	305.2	305.7	305.2	305.7	305.2	305.2	305.2	305.2
180°	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2

(END OF REPORT)