

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: P821323

Luminaire Tested: **TT-D5-740-24VDC-CQ-UPL**

Issue Date: 7/23/2020



Test Information

Test Method: LM-79-08
Report Number: P821323
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G2-2002-677-1) AND
Test Lab: INNOVATION CENTER
Issue Date: 7/23/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TT-D5-740-24VDC-CQ-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
4000K, 70 CRI LEDS AND CONCENTRATED DISTRIBUTION
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

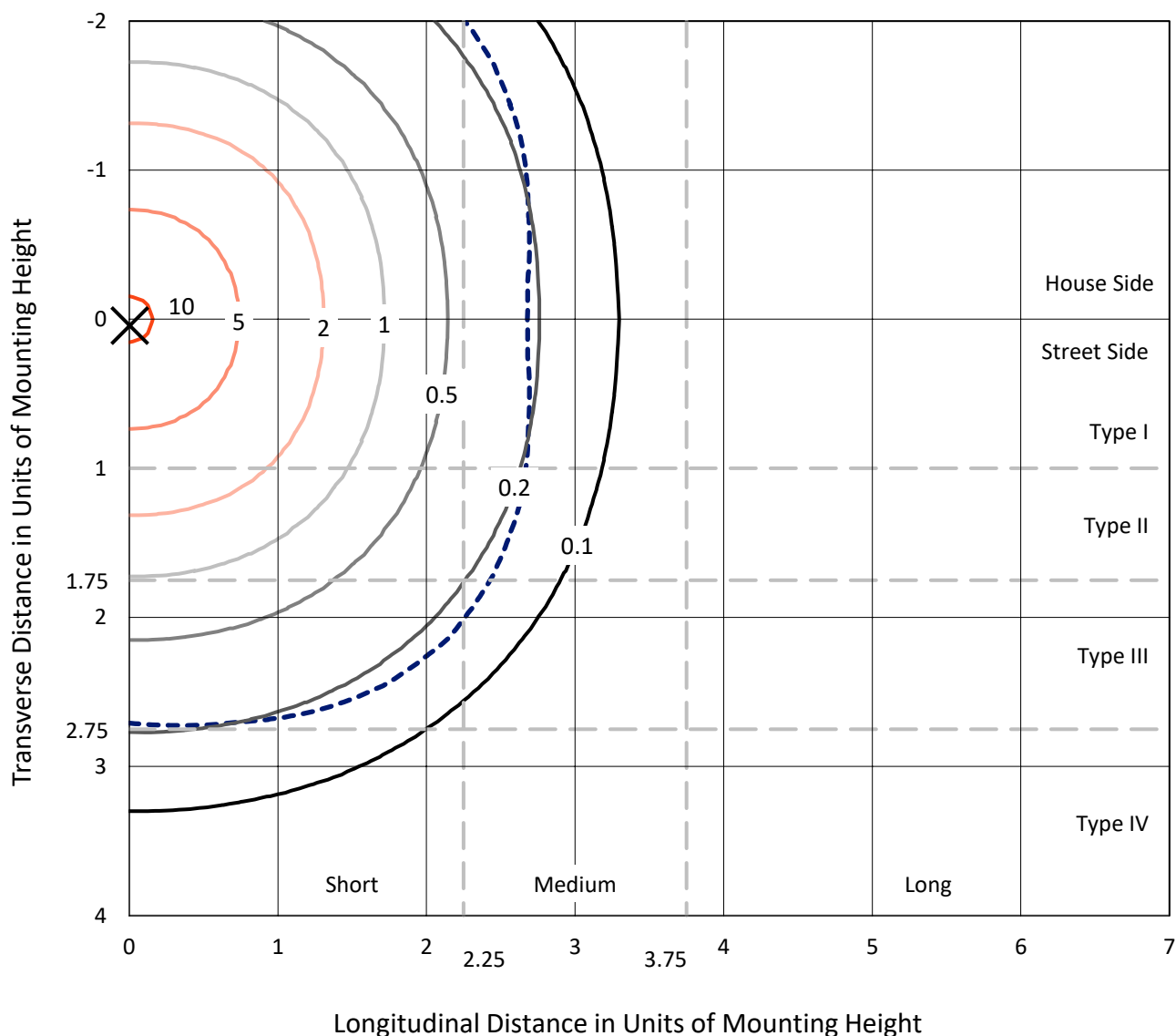
Lumens per Lamp: N/A
Luminaire Lumens: 10304.7 lumens
Efficiency: N/A
Efficacy: 141.2 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short
BUG Rating: B3 - U4 - G1

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

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Iso-Footcandle Lines of Horizontal Illumination

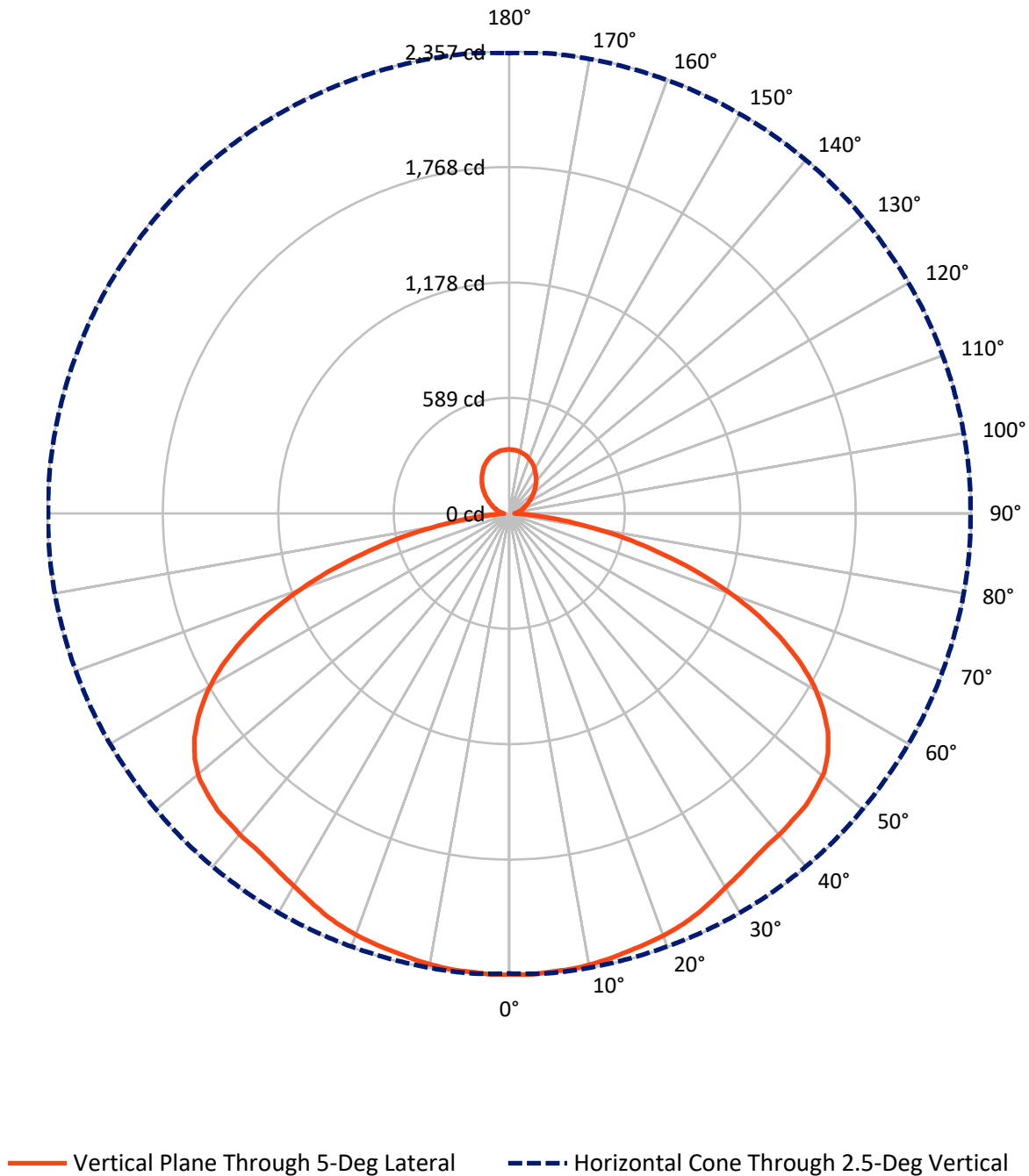
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 10.5 fc
 Type V - Short - N/A

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Luminous Intensity Polar Plot



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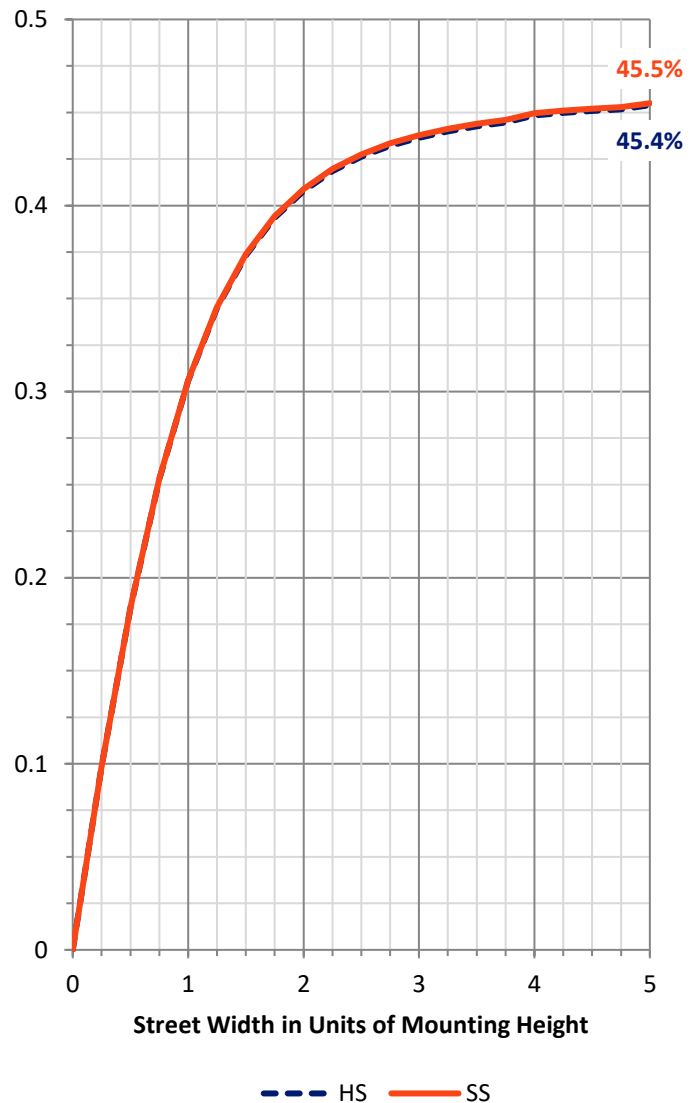
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4709.6	442.7	5152.4
	% Fixture	45.7	4.3	50.0
Street Side	Lumens	4709.6	442.7	5152.4
	% Fixture	45.7	4.3	50.0
Total	Lumens	9419.3	885.5	10304.7
	% Fixture	91.4	8.6	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	224.0	2.2
10°-20°	656.1	6.4
20°-30°	1043.3	10.1
30°-40°	1372.5	13.3
40°-50°	1679.8	16.3
50°-60°	1819.5	17.7
60°-70°	1565.3	15.2
70°-80°	880.0	8.5
80°-90°	178.7	1.7
90°-100°	45.4	0.4
100°-110°	70.3	0.7
110°-120°	97.7	0.9
120°-130°	126.6	1.2
130°-140°	147.6	1.4
140°-150°	149.5	1.5
150°-160°	129.8	1.3
160°-170°	87.7	0.9
170°-180°	30.8	0.3
0°-90°	9419.3	91.4
0°-180°	10304.7	100.0

Coefficient of Utilization



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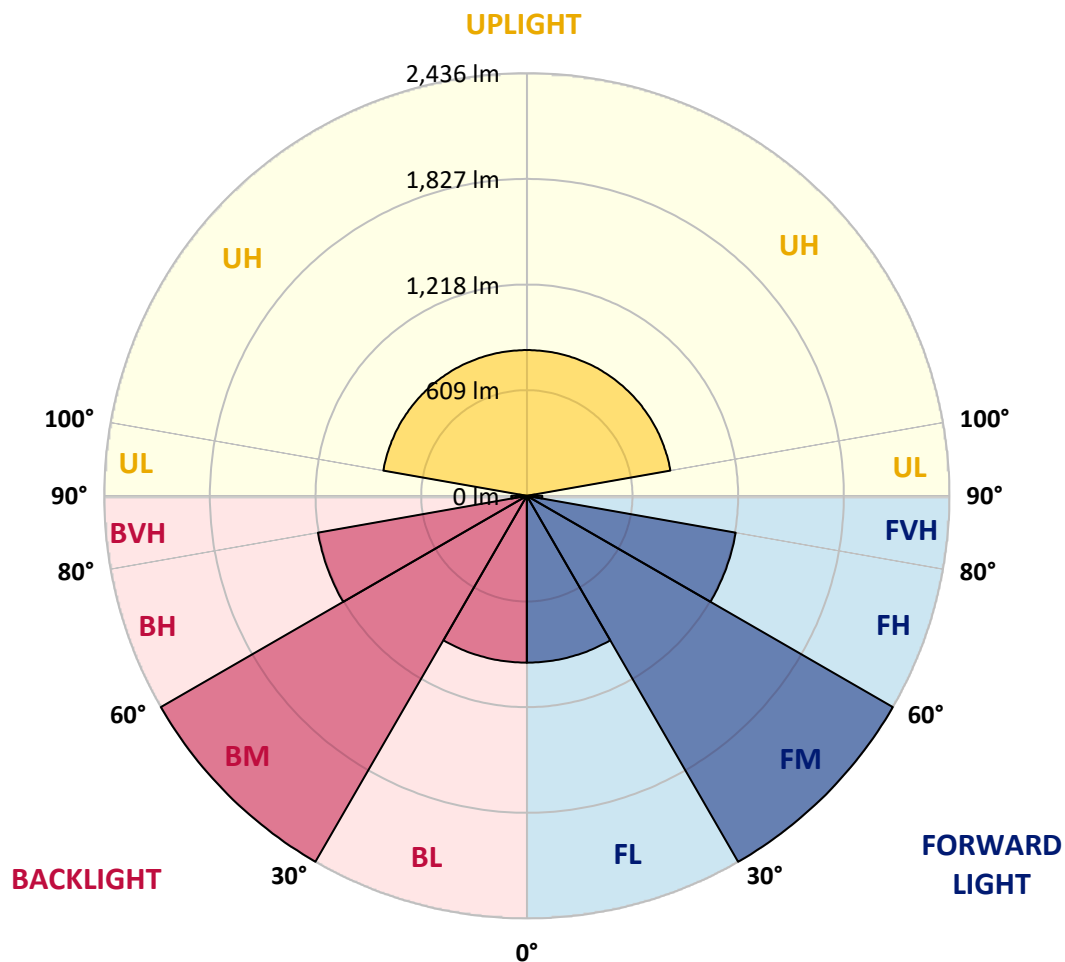
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	961.7	9.3			
FM	(30°-60°)	2435.9	23.6			
FH	(60°-80°)	1222.7	11.9			G1/1800
FVH	(80°-90°)	89.4	0.9			G1/100
BL	(0°-30°)	961.7	9.3	B2/1000		
BM	(30°-60°)	2435.9	23.6	B2/2500		
BH	(60°-80°)	1222.7	11.9	B3/2500		G1/1800
BVH	(80°-90°)	89.4	0.9			G1/100
UL	(90°-100°)	45.4	0.4		U2/50	
UH	(100°-180°)	840.1	8.2		U4/1000	

BUG Rating: B3-U4-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2355.4	2355.4	2355.4	2355.4	2355.4	2355.4	2355.4	2355.4	2355.4	2355.4	2355.4
2.5°	2349.4	2356.9	2353.9	2353.9	2353.9	2353.9	2350.9	2353.9	2353.9	2355.4	2353.9
5°	2350.9	2349.4	2349.4	2350.9	2350.9	2352.4	2349.4	2350.9	2352.4	2352.4	2353.9
7.5°	2346.4	2347.9	2344.9	2347.9	2344.9	2346.4	2346.4	2347.9	2346.4	2347.9	2350.9
10°	2337.4	2338.9	2337.4	2337.4	2337.4	2340.4	2334.4	2338.9	2337.4	2338.9	2337.4
12.5°	2320.9	2328.4	2325.4	2328.4	2328.4	2328.4	2323.9	2326.9	2328.4	2328.4	2328.4
15°	2313.4	2314.9	2310.4	2316.4	2317.9	2319.4	2313.4	2316.4	2316.4	2317.9	2319.4
17.5°	2296.9	2304.4	2302.9	2307.4	2305.9	2310.4	2308.9	2307.4	2305.9	2308.9	2305.9
20°	2284.9	2292.4	2290.9	2295.4	2296.9	2301.4	2296.9	2296.9	2292.4	2293.9	2298.4
22.5°	2272.9	2275.9	2275.9	2280.4	2280.4	2284.9	2280.4	2278.9	2278.9	2277.4	2281.9
25°	2253.5	2255.0	2253.5	2258.0	2261.0	2264.0	2262.5	2259.5	2258.0	2258.0	2256.5
27.5°	2222.0	2228.0	2231.0	2237.0	2238.5	2243.0	2237.0	2237.0	2234.0	2231.0	2232.5
30°	2198.0	2201.0	2201.0	2214.5	2214.5	2222.0	2214.5	2213.0	2211.5	2210.0	2207.0
32.5°	2175.6	2180.1	2184.5	2195.0	2202.5	2205.5	2201.0	2198.0	2190.5	2186.0	2184.5
35°	2157.6	2159.1	2168.1	2183.1	2192.0	2199.5	2193.5	2186.0	2175.6	2168.1	2174.1
37.5°	2144.1	2145.6	2159.1	2178.6	2195.0	2201.0	2192.0	2180.1	2163.6	2154.6	2151.6
40°	2132.1	2141.1	2156.1	2183.1	2201.0	2210.0	2202.5	2186.0	2162.1	2144.1	2142.6
42.5°	2126.1	2130.6	2153.1	2184.5	2210.0	2222.0	2211.5	2189.0	2159.1	2138.1	2136.6
45°	2111.1	2124.6	2145.6	2186.0	2214.5	2229.5	2214.5	2186.0	2150.1	2126.1	2121.6
47.5°	2099.1	2103.6	2136.6	2183.1	2217.5	2229.5	2214.5	2178.6	2133.6	2102.1	2099.1
50°	2070.7	2081.2	2114.1	2163.6	2204.0	2216.0	2198.0	2150.1	2099.1	2064.7	2058.7
52.5°	2027.2	2036.2	2075.2	2136.6	2175.6	2189.0	2162.1	2111.1	2051.2	2009.2	2009.2
55°	1959.8	1973.3	2013.7	2076.7	2126.1	2138.1	2106.6	2052.7	1985.3	1943.3	1941.8
57.5°	1878.9	1887.9	1931.3	2000.3	2048.2	2066.2	2034.7	1974.8	1907.4	1857.9	1853.4
60°	1774.0	1786.0	1832.4	1898.4	1947.8	1962.8	1935.8	1875.9	1807.0	1754.5	1754.5
62.5°	1648.2	1661.6	1708.1	1775.5	1826.5	1848.9	1811.5	1754.5	1682.6	1631.7	1627.2
65°	1501.3	1513.3	1555.3	1625.7	1678.1	1694.6	1666.1	1606.2	1537.3	1489.3	1484.8
67.5°	1336.5	1353.0	1394.9	1454.9	1499.8	1520.8	1502.8	1448.9	1377.0	1327.5	1323.0
70°	1158.2	1170.2	1203.2	1258.6	1309.5	1324.5	1297.5	1261.6	1194.2	1149.2	1143.2
72.5°	967.9	978.4	1005.4	1057.8	1093.8	1113.3	1098.3	1051.8	997.9	960.4	966.4
75°	776.1	774.6	804.6	842.1	875.0	888.5	878.0	848.0	798.6	767.1	765.6
77.5°	584.3	599.3	609.8	641.3	668.3	678.7	663.8	639.8	602.3	576.9	581.3
80°	410.5	401.5	421.0	440.5	458.5	469.0	460.0	446.5	421.0	401.5	398.6
82.5°	251.7	244.2	253.2	271.2	283.2	286.2	287.7	271.2	260.7	245.7	248.7
85°	110.9	112.4	119.9	131.9	133.4	134.8	134.8	131.9	119.9	118.4	115.4
87.5°	27.0	27.0	28.5	33.0	33.0	34.5	34.5	30.0	28.5	25.5	27.0
90°	32.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0
92.5°	37.0	37.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0
95°	42.0	42.0	42.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0
97.5°	48.0	48.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0
100°	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
102.5°	60.0	59.0	60.0	60.0	59.0	59.0	59.0	60.0	60.0	60.0	59.0
105°	66.0	66.0	66.0	66.0	66.0	66.0	66.0	67.0	66.0	66.0	66.0
107.5°	73.0	73.0	73.0	74.0	74.0	74.0	74.0	74.0	73.0	74.0	73.0
110°	80.0	80.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	89.0	89.0	89.0	89.0	89.0	90.0	90.0	90.0	90.0	90.0	89.0
115°	97.0	97.0	98.0	98.0	98.0	98.0	99.0	99.0	98.0	98.0	98.0
117.5°	107.0	107.0	107.0	107.0	107.0	108.0	108.0	108.0	108.0	108.0	107.0
120°	117.0	117.0	117.0	118.0	118.0	118.0	119.0	119.0	118.0	118.0	118.0
122.5°	129.0	128.0	129.0	129.0	129.0	129.0	130.0	130.0	130.0	130.0	129.0
125°	140.0	140.0	141.0	141.0	141.0	141.0	142.0	142.0	142.0	142.0	141.0
127.5°	153.0	153.0	153.0	153.0	153.0	154.0	154.0	154.0	154.0	154.0	154.0
130°	165.0	165.0	166.0	166.0	166.0	166.0	167.0	167.0	167.0	167.0	166.0
132.5°	179.0	178.0	179.0	178.0	178.0	179.0	179.0	180.0	179.0	180.0	179.0
135°	191.0	191.0	191.0	191.0	191.0	192.0	192.0	192.0	192.0	192.0	192.0
137.5°	204.0	203.0	204.0	203.0	203.0	204.0	204.0	204.0	204.0	204.0	204.0
140°	216.0	215.0	216.0	215.0	216.0	216.0	216.0	216.0	216.0	216.0	216.0
142.5°	228.0	227.0	228.0	227.0	227.0	228.0	228.0	228.0	228.0	228.0	228.0
145°	239.0	239.0	239.0	238.0	239.0	239.0	239.0	239.0	239.0	239.0	239.0
147.5°	250.0	249.0	250.0	249.0	249.0	250.0	250.0	250.0	250.0	250.0	250.0
150°	263.0	262.0	263.0	262.0	263.0	263.0	263.0	263.0	263.0	263.0	263.0
152.5°	273.0	273.0	273.0	273.0	273.0	273.0	273.0	273.0	273.0	273.0	273.0
155°	282.0	282.0	283.0	282.0	282.0	282.0	283.0	282.0	282.0	282.0	282.0
157.5°	290.0	290.0	290.0	290.0	290.0	290.0	291.0	291.0	290.0	291.0	290.0
160°	298.0	298.0	299.0	298.0	298.0	298.0	299.0	298.0	298.0	298.0	298.0
162.5°	306.0	305.0	306.0	305.0	306.0	306.0	306.0	306.0	306.0	306.0	306.0
165°	311.0	311.0	312.0	311.0	311.0	311.0	312.0	311.0	311.0	311.0	311.0
167.5°	316.0	315.0	316.0	316.0	316.0	316.0	316.0	316.0	316.0	316.0	316.0
170°	319.0	319.0	320.0	319.0	319.0	319.0	320.0	319.0	319.0	319.0	319.0
172.5°	323.0	323.0	323.0	323.0	323.0	323.0	323.0	323.0	323.0	323.0	323.0
175°	324.0	324.0	325.0	324.0	325.0	324.0	325.0	324.0	324.0	324.0	324.0
177.5°	325.0	325.0	326.0	325.0	325.0	325.0	325.0	325.0	325.0	325.0	325.0
180°	326.0	326.0	326.0	326.0	326.0	326.0	326.0	326.0	326.0	326.0	326.0

(END OF REPORT)