

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: P198157

Luminaire Tested: **TT-C1-LED-E1-DL-LWR-LW-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198157
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P34705)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: TT-C1-LED-E1-DL-LWR-LW-8030
Description: TOPTIER LED PARKING GARAGE LUMINAIRE
DRIVE LANE DISTRIBUTION WITH LumaWatt WIRELESS SENSOR
Light Source: (160) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2190.7 lumens
Efficiency: N/A
Efficacy: 65.4 lumens/watt
Luminous Opening: Circular (Dia: 1.12' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 33.5
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

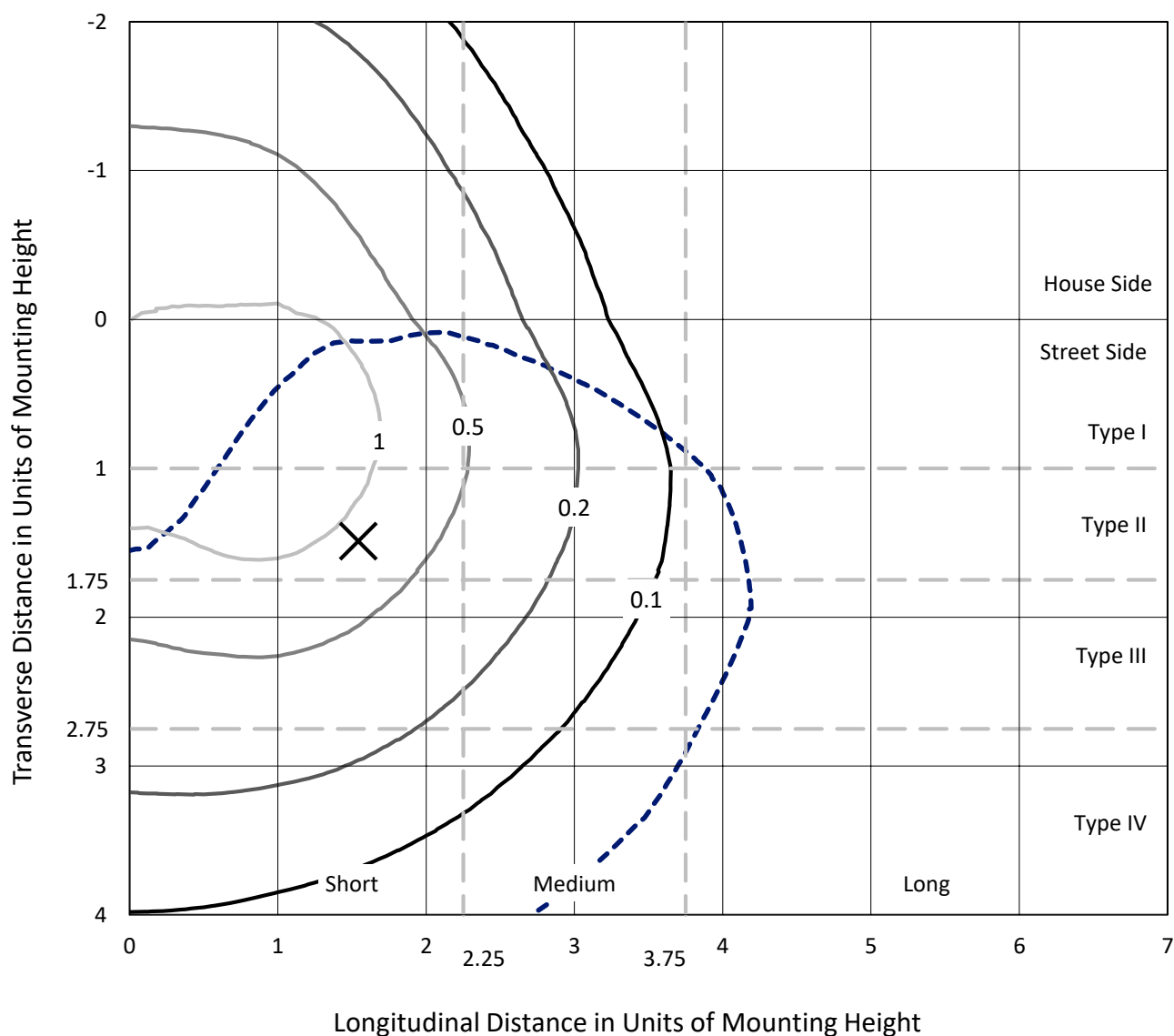


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

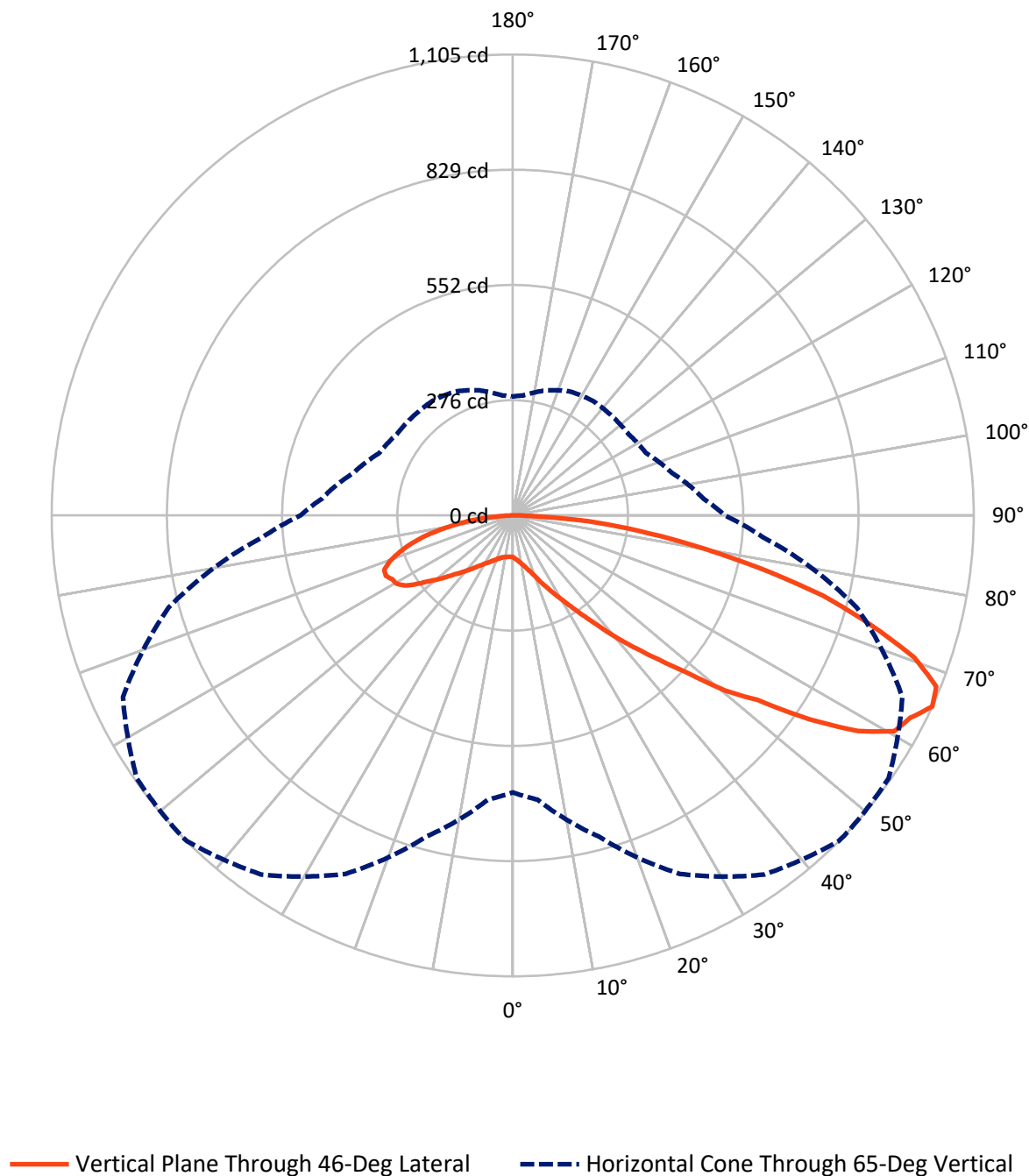


Based on 10 foot mounting height. Maximum calculated value = 1.8 fc
Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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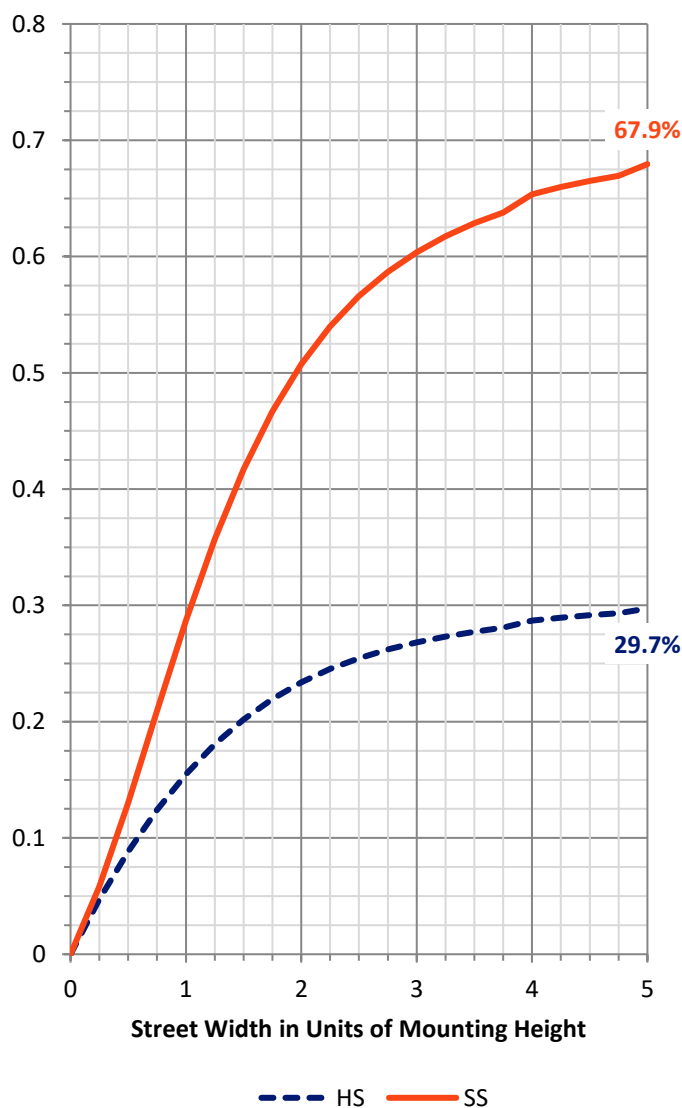
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	665.2	0.0	665.2
	% Fixture	30.4	0.0	30.4
Street Side	Lumens	1525.5	0.0	1525.5
	% Fixture	69.6	0.0	69.6
Total	Lumens	2190.7	0.0	2190.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	10.1	0.5
10°-20°	34.4	1.6
20°-30°	72.5	3.3
30°-40°	137.8	6.3
40°-50°	254.5	11.6
50°-60°	446.1	20.4
60°-70°	605.3	27.6
70°-80°	492.2	22.5
80°-90°	137.9	6.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	2190.7	100.0
0°-180°	2190.7	100.0

Coefficient of Utilization



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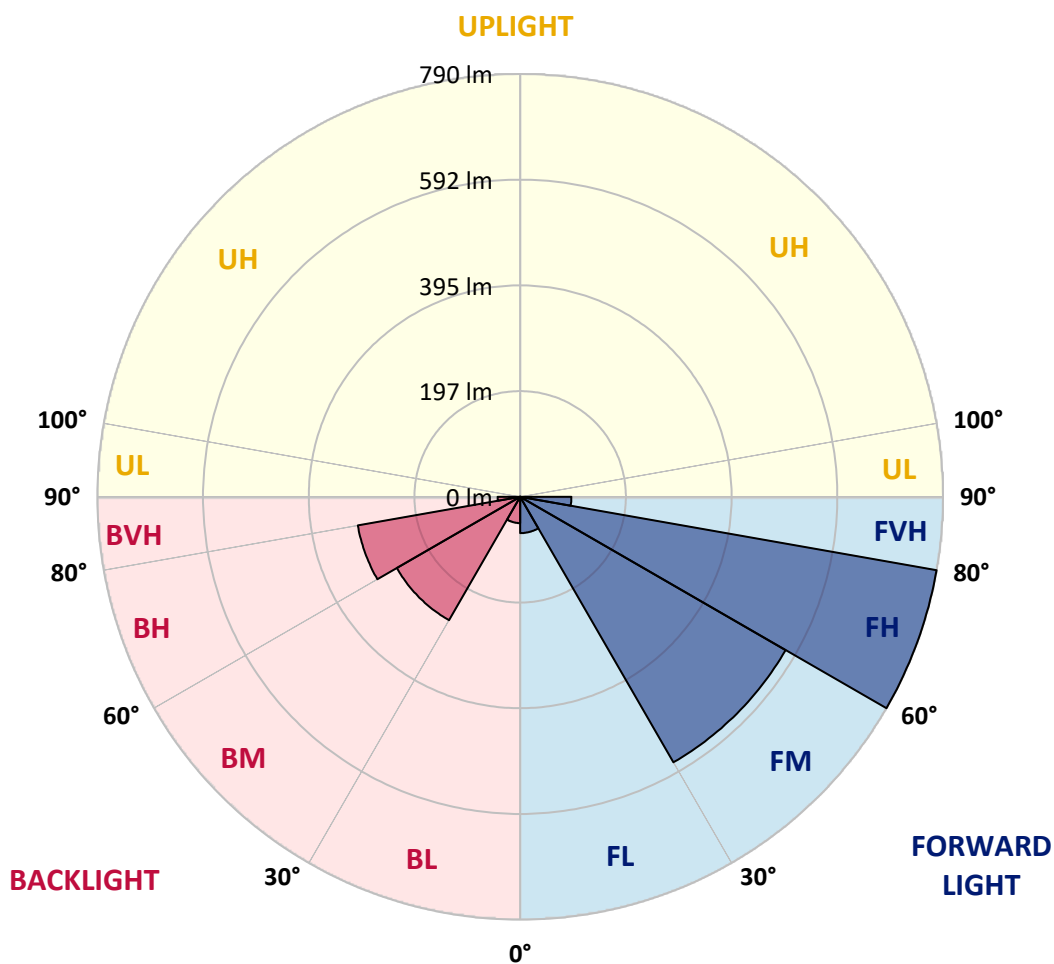
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	67.8	3.1			
FM	(30°-60°)	572.4	26.1			
FH	(60°-80°)	789.6	36.0			G1/1800
FVH	(80°-90°)	95.7	4.4			G1/100
BL	(0°-30°)	49.1	2.2	B0/110		
BM	(30°-60°)	266.0	12.1	B1/1000		
BH	(60°-80°)	307.9	14.1	B1/500		G1/500
BVH	(80°-90°)	42.2	1.9			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
2.5°	103.7	104.1	104.1	104.1	103.7	103.3	103.3	102.8	102.4	102.4	101.9
5°	108.6	108.6	108.6	108.1	107.7	107.2	106.8	106.4	105.0	104.1	103.7
7.5°	114.3	114.3	114.3	113.9	113.0	111.7	112.1	110.8	109.5	107.7	105.9
10°	121.0	121.4	121.9	120.5	119.7	118.3	117.9	116.1	114.3	112.1	109.9
12.5°	129.0	128.5	129.4	128.1	127.2	125.0	124.5	122.3	119.2	116.6	113.9
15°	138.7	139.2	138.7	137.8	136.1	133.8	133.8	130.7	127.2	123.2	118.8
17.5°	152.5	152.5	150.7	150.2	147.1	144.5	143.6	140.9	135.2	130.3	125.0
20°	167.5	166.6	164.4	164.9	162.2	158.2	157.3	152.9	146.7	139.2	132.1
22.5°	184.8	183.9	181.3	180.8	177.3	174.2	174.2	168.0	159.5	149.8	140.0
25°	198.5	199.0	199.4	199.9	197.2	192.3	191.9	185.2	174.2	161.8	148.9
27.5°	215.4	217.6	217.2	219.4	218.0	213.6	212.7	205.6	191.9	177.3	161.3
30°	234.4	237.5	235.8	240.2	240.2	237.1	235.3	228.2	214.5	193.7	174.6
32.5°	255.7	256.2	258.8	264.6	267.2	265.5	264.1	257.5	239.8	216.7	191.9
35°	280.1	277.9	282.3	293.4	297.4	297.8	297.4	289.4	273.4	245.1	213.6
37.5°	304.5	303.6	312.0	323.1	335.0	339.9	337.7	335.0	312.0	276.5	236.2
40°	327.5	331.5	342.6	356.3	375.4	386.9	387.3	382.0	358.1	315.1	263.2
42.5°	350.1	358.1	372.3	396.2	420.6	439.2	437.0	432.5	411.7	360.3	297.8
45°	381.1	389.1	403.3	432.1	471.1	494.1	494.6	502.6	484.8	421.0	344.8
47.5°	409.5	416.6	437.4	476.0	523.8	565.9	564.2	575.7	553.1	476.9	381.6
50°	448.5	446.3	476.9	530.5	595.6	648.8	660.3	666.1	623.6	546.9	421.0
52.5°	483.1	480.8	519.0	590.8	671.9	740.5	734.3	748.5	730.8	641.7	505.2
55°	517.6	517.6	565.5	659.9	766.7	856.7	862.0	885.9	838.0	712.6	534.9
57.5°	555.7	559.7	627.5	745.4	876.2	974.5	975.4	977.7	900.5	741.0	542.9
60°	592.5	603.2	691.4	829.6	962.6	1043.2	1050.3	1019.8	924.5	759.2	546.0
62.5°	633.3	643.9	752.1	899.7	1026.4	1071.2	1068.9	1038.8	963.9	810.1	585.4
65°	663.9	683.8	796.8	948.0	1050.8	1104.0	1104.8	1099.5	1030.4	853.6	601.8
67.5°	694.9	725.0	819.9	966.6	1068.1	1096.0	1094.6	1074.3	1003.4	829.2	569.0
70°	728.1	750.3	835.8	949.7	1016.2	1019.8	1021.1	991.8	934.2	779.1	527.8
72.5°	739.7	755.6	811.5	879.7	910.7	909.8	897.4	886.4	837.6	702.4	468.9
75°	719.3	720.6	729.0	758.7	772.9	760.9	767.6	751.2	723.3	603.6	399.7
77.5°	639.5	637.3	613.4	602.7	603.2	600.5	600.9	581.0	569.0	497.2	324.4
80°	499.0	498.6	479.5	449.8	440.5	437.9	440.5	430.8	419.7	375.4	246.8
82.5°	346.1	340.8	332.4	308.9	307.6	302.2	303.6	301.8	296.5	266.8	175.1
85°	168.0	175.1	182.6	180.8	175.1	175.9	181.7	181.3	175.1	152.9	101.9
87.5°	23.0	33.2	34.6	33.2	42.1	52.7	42.1	43.0	34.6	35.5	22.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
2.5°	101.5	101.0	100.6	100.2	99.7	99.3	98.8	98.8	98.4	98.4	98.4
5°	103.3	102.8	101.9	101.0	100.6	99.7	99.3	98.8	97.9	97.9	97.5
7.5°	105.0	104.6	103.3	101.9	101.0	100.2	99.7	99.3	98.8	97.9	97.9
10°	108.6	107.2	105.5	103.7	101.9	101.0	100.2	99.7	99.7	99.3	99.3
12.5°	112.1	110.8	107.7	105.5	103.3	101.9	101.0	101.0	100.6	100.6	100.2
15°	116.6	114.8	111.2	108.1	105.5	104.1	102.8	102.8	102.8	102.8	102.8
17.5°	121.9	119.2	115.2	111.7	109.0	107.2	105.9	105.9	105.5	105.9	106.4
20°	129.0	125.4	120.1	115.7	112.6	111.2	110.4	109.9	109.9	110.4	110.8
22.5°	135.6	131.6	124.5	120.1	117.4	115.2	114.8	114.8	114.3	115.2	115.2
25°	143.6	138.7	131.2	125.4	121.9	120.1	120.1	120.1	120.5	121.0	120.1
27.5°	154.2	148.5	138.3	131.2	128.1	126.3	125.4	126.3	126.7	127.2	126.3
30°	164.9	158.7	145.8	137.8	133.4	131.6	131.6	132.5	133.0	133.4	132.5
32.5°	179.5	170.2	156.4	146.2	141.4	139.6	139.6	140.0	140.0	140.9	140.5
35°	199.9	187.0	169.7	157.8	150.7	148.0	147.6	148.0	148.9	148.5	150.2
37.5°	219.4	204.7	183.0	170.2	163.1	159.1	157.3	156.9	157.8	158.2	158.7
40°	242.4	224.7	199.4	183.5	174.6	170.2	167.5	167.5	167.1	167.5	165.7
42.5°	272.1	252.2	220.3	199.9	187.5	183.5	178.6	177.3	175.9	176.4	173.7
45°	312.4	287.2	249.1	222.0	205.6	197.2	192.3	188.4	186.6	185.7	183.0
47.5°	340.4	313.3	272.1	242.9	225.6	214.5	207.0	201.6	197.2	195.0	195.4
50°	377.6	342.6	300.0	264.6	246.8	234.4	225.6	216.3	209.6	207.0	208.3
52.5°	448.1	406.0	339.9	298.3	268.6	254.8	245.5	234.0	224.2	219.4	220.7
55°	471.5	428.6	367.8	325.3	298.7	281.9	267.2	253.5	240.6	232.7	233.1
57.5°	473.8	431.2	372.7	337.3	319.1	307.6	293.8	275.7	257.9	246.8	246.0
60°	471.5	428.1	371.8	335.9	323.1	322.6	314.2	298.3	277.4	261.0	259.7
62.5°	502.6	456.0	387.8	343.5	325.3	326.6	328.4	317.3	296.0	276.1	271.7
65°	508.3	459.1	394.4	352.8	339.0	336.4	335.0	327.5	310.2	288.5	285.0
67.5°	480.0	433.4	374.5	338.6	329.3	335.0	339.9	333.3	316.9	300.5	295.6
70°	442.3	400.2	345.2	312.0	306.7	315.5	326.2	328.4	319.1	305.8	304.0
72.5°	391.8	356.3	308.0	281.4	279.2	285.8	298.3	308.5	307.1	304.0	303.1
75°	333.7	306.2	264.1	243.7	243.7	252.2	261.5	272.6	281.0	286.3	287.6
77.5°	274.8	247.3	216.3	199.0	201.2	212.3	218.9	230.0	239.3	246.4	246.8
80°	206.5	191.5	164.4	155.1	156.0	163.5	172.8	179.5	187.0	193.2	191.5
82.5°	149.4	135.6	117.0	111.7	115.2	118.8	126.3	132.1	134.3	136.1	139.6
85°	86.0	82.0	71.8	68.7	69.6	73.1	77.6	78.9	81.1	80.2	82.0
87.5°	20.8	22.2	20.8	20.4	20.8	19.9	19.1	23.0	23.5	23.9	23.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)