

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: P198234

Luminaire Tested: **TT-C1-LED-E1-CQ-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198234
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (P27139) AND SCALED
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-CQ-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
CONCENTRATED DISTRIBUTION
Light Source: (168) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4810.7 lumens
Efficiency: N/A
Efficacy: 106.0 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B2 - U4 - G1

Input Watts (W): 45.4
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

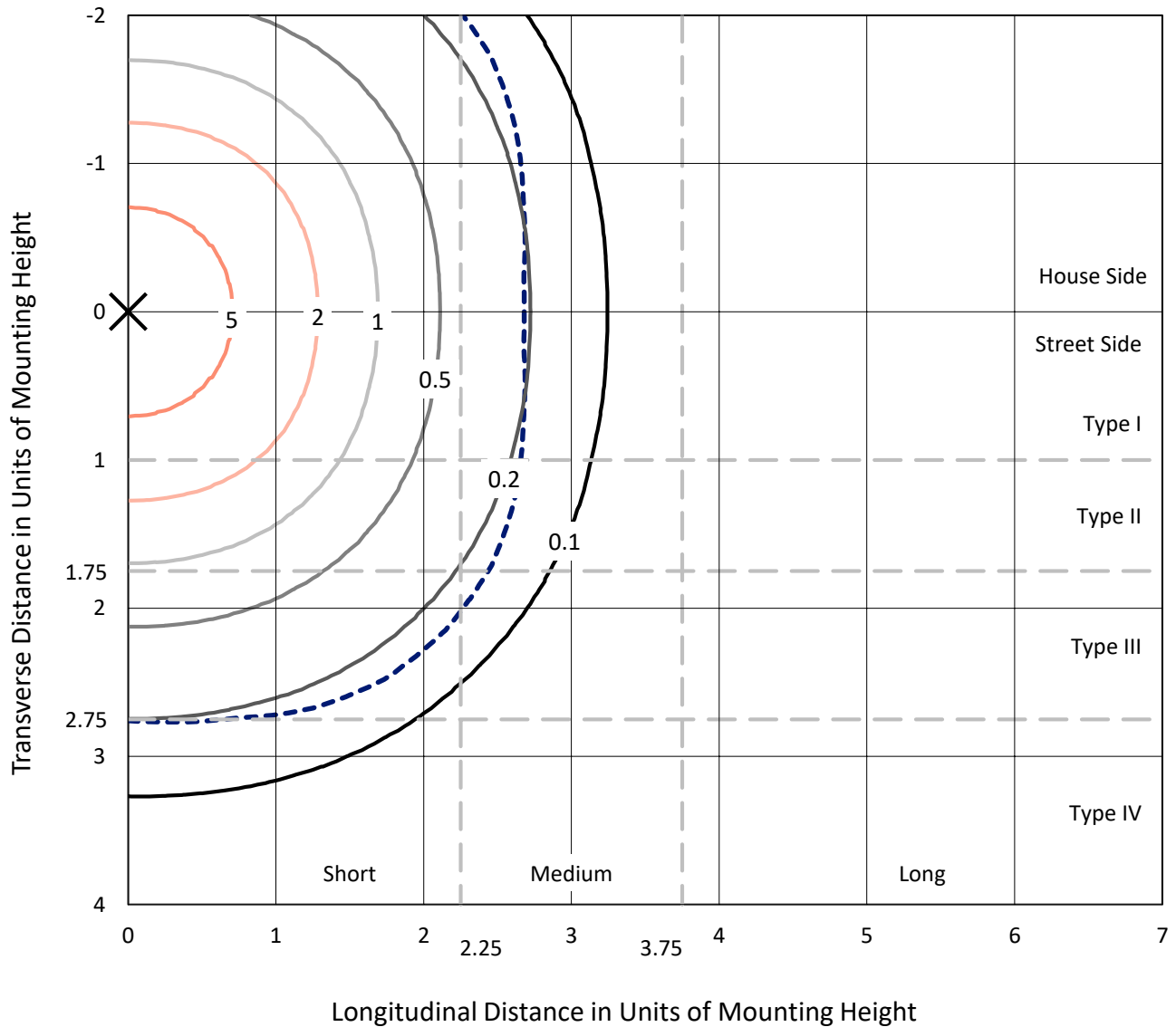


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

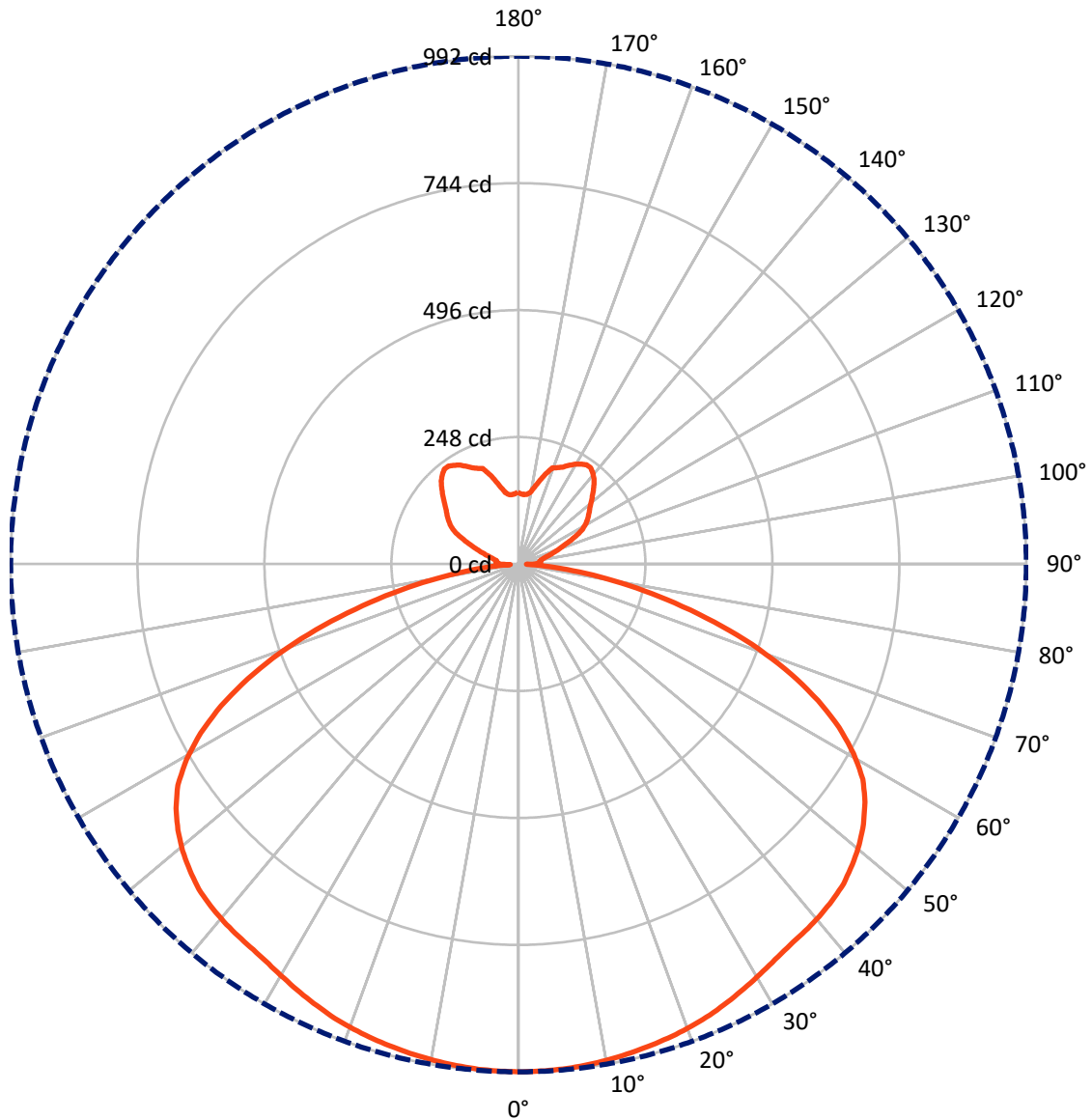


Based on 10 foot mounting height. Maximum calculated value = 9.9 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 0-Deg Vertical

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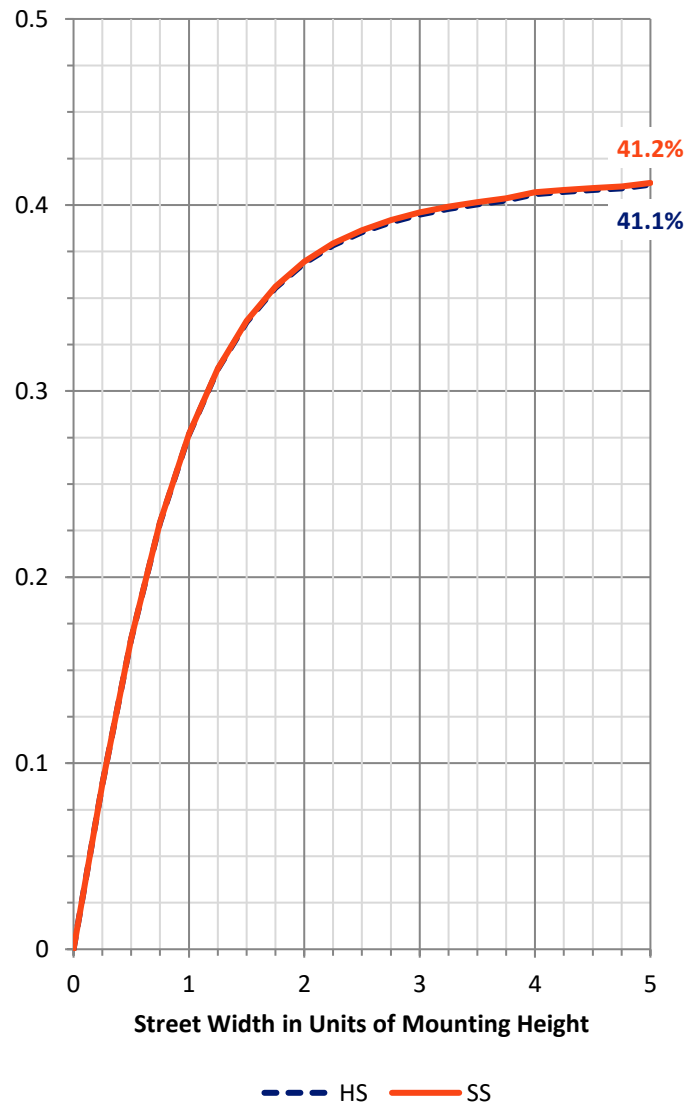
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1992.7	412.7	2405.4
	% Fixture	41.4	8.6	50.0
Street Side	Lumens	1992.7	412.7	2405.4
	% Fixture	41.4	8.6	50.0
Total	Lumens	3985.4	825.3	4810.7
	% Fixture	82.8	17.2	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.3	2.0
10°-20°	276.1	5.7
20°-30°	439.2	9.1
30°-40°	580.9	12.1
40°-50°	708.8	14.7
50°-60°	765.5	15.9
60°-70°	662.9	13.8
70°-80°	375.9	7.8
80°-90°	81.7	1.7
90°-100°	38.4	0.8
100°-110°	59.5	1.2
110°-120°	119.6	2.5
120°-130°	148.9	3.1
130°-140°	153.3	3.2
140°-150°	136.3	2.8
150°-160°	103.9	2.2
160°-170°	51.8	1.1
170°-180°	13.6	0.3
0°-90°	3985.4	82.8
0°-180°	4810.7	100.0



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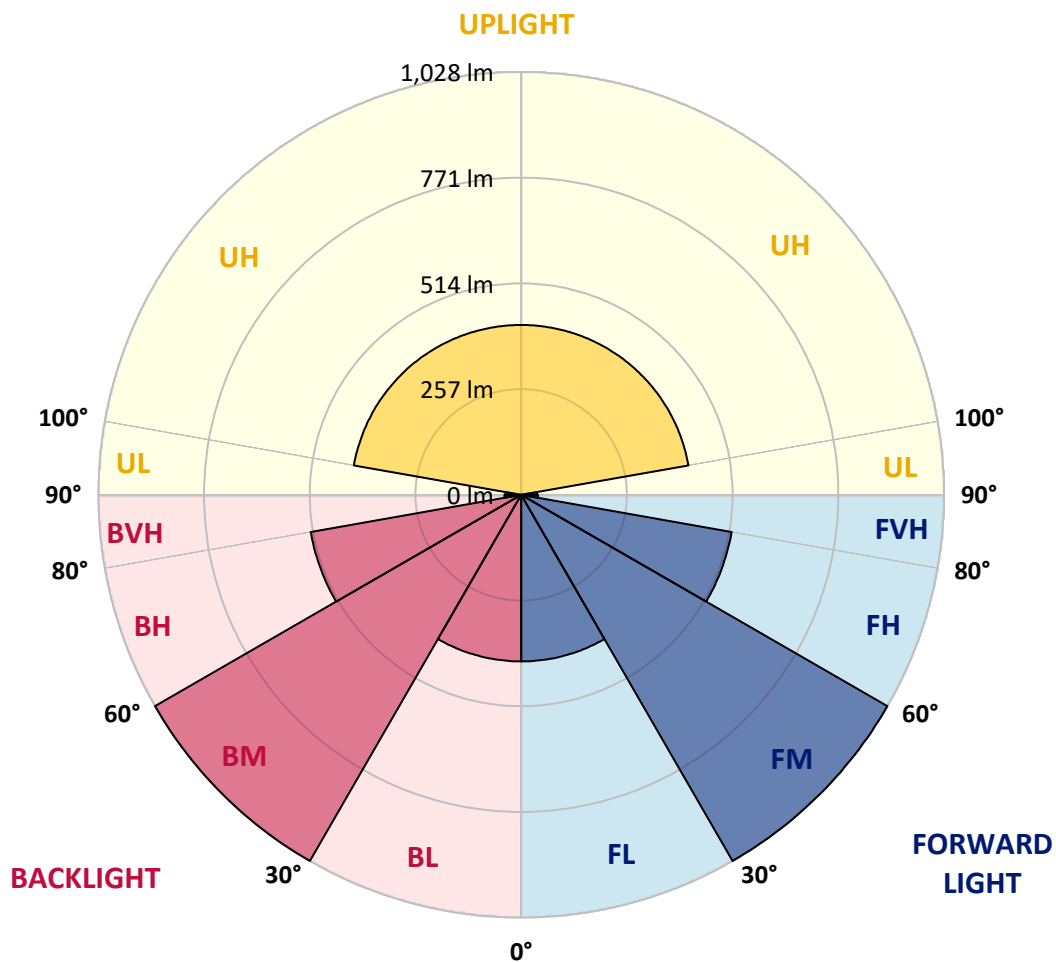
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	404.8	8.4			
FM (30°-60°)	1027.6	21.4			
FH (60°-80°)	519.4	10.8			G0/660
FVH (80°-90°)	40.9	0.8			G1/100
BL (0°-30°)	404.8	8.4	B1/500		
BM (30°-60°)	1027.6	21.4	B2/2500		
BH (60°-80°)	519.4	10.8	B2/1000		G0/660
BVH (80°-90°)	40.9	0.8			G1/100
UL (90°-100°)	38.4	0.8		U2/50	
UH (100°-180°)	412.7	8.6		U3/500	

BUG Rating: B2-U4-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	992.1	992.1	992.1	992.1	992.1	992.1	992.1	992.1	992.1	992.1	992.1
2.5°	991.4	991.4	991.4	991.4	991.4	991.4	991.4	991.4	991.4	991.4	991.4
5°	990.1	990.1	990.1	990.1	990.1	990.1	990.1	990.1	990.1	990.1	990.1
7.5°	987.3	987.3	987.3	987.3	987.3	988.0	987.3	987.3	987.3	987.3	988.0
10°	983.9	983.9	984.6	984.6	983.9	983.9	983.9	983.9	983.9	983.9	983.9
12.5°	979.8	979.8	979.8	979.8	979.8	979.8	979.8	979.8	979.1	979.1	979.1
15°	975.0	975.0	975.0	975.7	975.7	975.7	975.7	975.0	974.3	973.6	974.3
17.5°	970.2	970.2	970.9	971.6	971.6	971.6	971.6	970.2	969.5	968.8	968.8
20°	964.0	964.7	964.7	965.4	966.1	966.1	966.1	965.4	964.0	962.6	962.6
22.5°	957.2	957.9	958.5	959.2	959.9	959.2	959.2	958.5	957.2	956.5	955.8
25°	948.3	948.3	949.6	951.0	951.7	951.7	951.7	950.3	948.9	948.3	947.6
27.5°	939.4	939.4	940.7	942.8	943.5	944.2	942.8	942.1	940.0	938.7	938.7
30°	929.8	929.8	931.8	934.6	936.6	937.3	936.6	933.9	931.1	929.8	929.8
32.5°	920.9	921.5	923.6	927.7	931.1	932.5	931.8	928.4	925.0	922.2	921.5
35°	914.0	914.7	918.8	923.6	929.1	931.1	929.1	925.7	920.2	916.1	916.1
37.5°	909.9	909.9	915.4	923.6	929.8	932.5	929.8	925.0	917.4	911.9	911.9
40°	905.1	906.5	913.3	923.6	932.5	936.6	933.2	926.3	916.7	909.9	909.2
42.5°	898.9	901.0	908.5	922.2	933.2	939.4	935.9	927.7	916.1	908.5	907.8
45°	890.7	891.4	901.0	917.4	931.8	940.0	937.3	927.0	914.0	905.1	903.7
47.5°	877.7	879.1	890.7	909.9	927.7	936.6	934.6	922.9	906.5	896.2	894.1
50°	862.6	864.0	877.7	899.6	919.5	929.8	926.3	911.9	894.1	880.4	879.1
52.5°	844.1	846.9	861.9	886.6	907.8	917.4	911.9	893.4	872.9	857.8	856.5
55°	821.5	824.2	841.4	867.4	888.7	896.2	888.7	866.7	844.8	827.7	824.2
57.5°	793.4	795.5	811.9	839.3	859.9	866.0	856.5	833.8	807.8	789.3	787.2
60°	752.3	755.0	774.2	799.6	820.1	827.7	818.1	790.7	762.6	744.1	743.4
62.5°	703.0	707.8	724.2	751.6	770.1	780.4	767.4	739.3	711.2	690.0	690.0
65°	643.4	646.8	664.6	691.3	709.1	718.0	705.0	679.0	648.2	629.7	627.6
67.5°	574.8	577.6	593.3	620.8	639.9	647.5	633.1	608.4	579.6	559.8	557.7
70°	498.8	502.9	514.6	539.9	557.0	561.1	550.2	526.9	500.9	483.0	481.7
72.5°	415.9	419.3	434.4	454.3	468.0	469.3	462.5	445.4	418.6	404.2	402.2
75°	330.9	336.4	349.4	366.6	376.8	376.8	372.7	360.4	337.1	326.1	326.1
77.5°	250.8	253.5	267.2	278.9	287.1	291.2	286.4	275.4	256.9	249.4	245.3
80°	174.7	177.5	183.6	192.5	200.8	203.5	198.0	189.1	178.8	173.3	170.6
82.5°	106.9	109.6	113.1	117.8	123.3	126.1	122.6	117.2	108.3	107.6	106.9
85°	51.4	52.8	55.5	56.9	59.6	60.3	61.0	58.2	55.5	52.1	53.4
87.5°	15.8	15.8	16.4	17.1	18.5	18.5	18.5	17.8	16.4	15.8	15.8
90°	36.0	36.0	36.0	34.0	29.0	26.0	28.0	32.0	34.0	34.0	34.0
92.5°	40.0	39.0	38.0	34.0	29.0	27.0	28.0	32.0	35.0	36.0	36.0
95°	44.0	43.0	41.0	36.0	32.0	30.0	30.0	34.0	37.0	39.0	38.0
97.5°	42.0	42.0	40.0	37.0	35.0	33.0	33.0	34.0	36.0	36.0	36.0
100°	45.0	45.0	44.0	40.0	38.0	36.0	36.0	38.0	38.0	37.0	37.0
102.5°	51.0	51.0	49.0	46.0	44.0	42.0	43.0	44.0	42.0	41.0	41.0
105°	60.0	60.0	57.0	54.0	53.0	52.0	54.0	53.0	49.0	48.0	49.0
107.5°	72.0	72.0	70.0	67.0	66.0	68.0	68.0	66.0	60.0	59.0	60.0
110°	86.0	86.0	89.0	85.0	86.0	87.0	84.0	84.0	78.0	74.0	75.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	101.0	102.0	108.0	107.0	110.0	107.0	102.0	105.0	100.0	95.0	94.0
115°	121.0	122.0	128.0	128.0	129.0	124.0	121.0	125.0	123.0	116.0	113.0
117.5°	140.0	141.0	144.0	141.0	141.0	136.0	138.0	141.0	139.0	133.0	129.0
120°	152.0	153.0	155.0	149.0	149.0	147.0	150.0	153.0	148.0	145.0	142.0
122.5°	161.0	162.0	164.0	154.0	155.0	158.0	159.0	162.0	155.0	153.0	150.0
125°	169.0	169.0	172.0	163.0	165.0	168.0	167.0	168.0	163.0	160.0	158.0
127.5°	177.0	177.0	181.0	171.0	176.0	178.0	176.0	175.0	173.0	166.0	163.0
130°	187.0	188.0	191.0	179.0	186.0	186.0	183.0	183.0	184.0	171.0	169.0
132.5°	198.0	199.0	201.0	186.0	193.0	195.0	190.0	192.0	192.0	179.0	176.0
135°	210.0	210.0	209.0	192.0	199.0	201.0	196.0	201.0	199.0	185.0	184.0
137.5°	221.0	219.0	213.0	197.0	205.0	208.0	203.0	210.0	204.0	191.0	190.0
140°	229.0	226.0	216.0	200.0	207.0	213.0	212.0	217.0	209.0	195.0	195.0
142.5°	235.0	231.0	218.0	201.0	208.0	218.0	220.0	223.0	211.0	198.0	198.0
145°	235.0	230.0	218.0	202.0	211.0	223.0	230.0	227.0	211.0	201.0	202.0
147.5°	230.0	227.0	219.0	207.0	216.0	229.0	239.0	229.0	212.0	204.0	206.0
150°	224.0	221.0	220.0	214.0	222.0	235.0	242.0	232.0	214.0	210.0	211.0
152.5°	216.0	214.0	221.0	220.0	230.0	241.0	242.0	235.0	219.0	215.0	216.0
155°	208.0	207.0	219.0	224.0	237.0	243.0	238.0	234.0	224.0	220.0	219.0
157.5°	203.0	203.0	216.0	224.0	234.0	235.0	228.0	229.0	226.0	222.0	219.0
160°	199.0	198.0	210.0	213.0	219.0	219.0	215.0	219.0	221.0	218.0	215.0
162.5°	185.0	184.0	193.0	193.0	198.0	198.0	196.0	200.0	204.0	207.0	207.0
165°	169.0	167.0	173.0	173.0	176.0	177.0	176.0	181.0	185.0	190.0	192.0
167.5°	154.0	152.0	156.0	155.0	159.0	159.0	160.0	165.0	168.0	172.0	174.0
170°	142.0	141.0	145.0	144.0	147.0	147.0	148.0	152.0	155.0	159.0	160.0
172.5°	137.0	135.0	139.0	138.0	141.0	141.0	141.0	145.0	146.0	149.0	151.0
175°	136.0	134.0	137.0	137.0	139.0	139.0	138.0	141.0	141.0	143.0	144.0
177.5°	137.0	136.0	139.0	138.0	140.0	139.0	138.0	140.0	140.0	141.0	141.0
180°	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0

(END OF REPORT)