

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: FAIL-SAFE

Report Number: P551358

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-82-87-ED1D**

Issue Date: 7/9/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P551358  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-248-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FCC-X-2-LD4-2HI-40-UNV-82-87-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

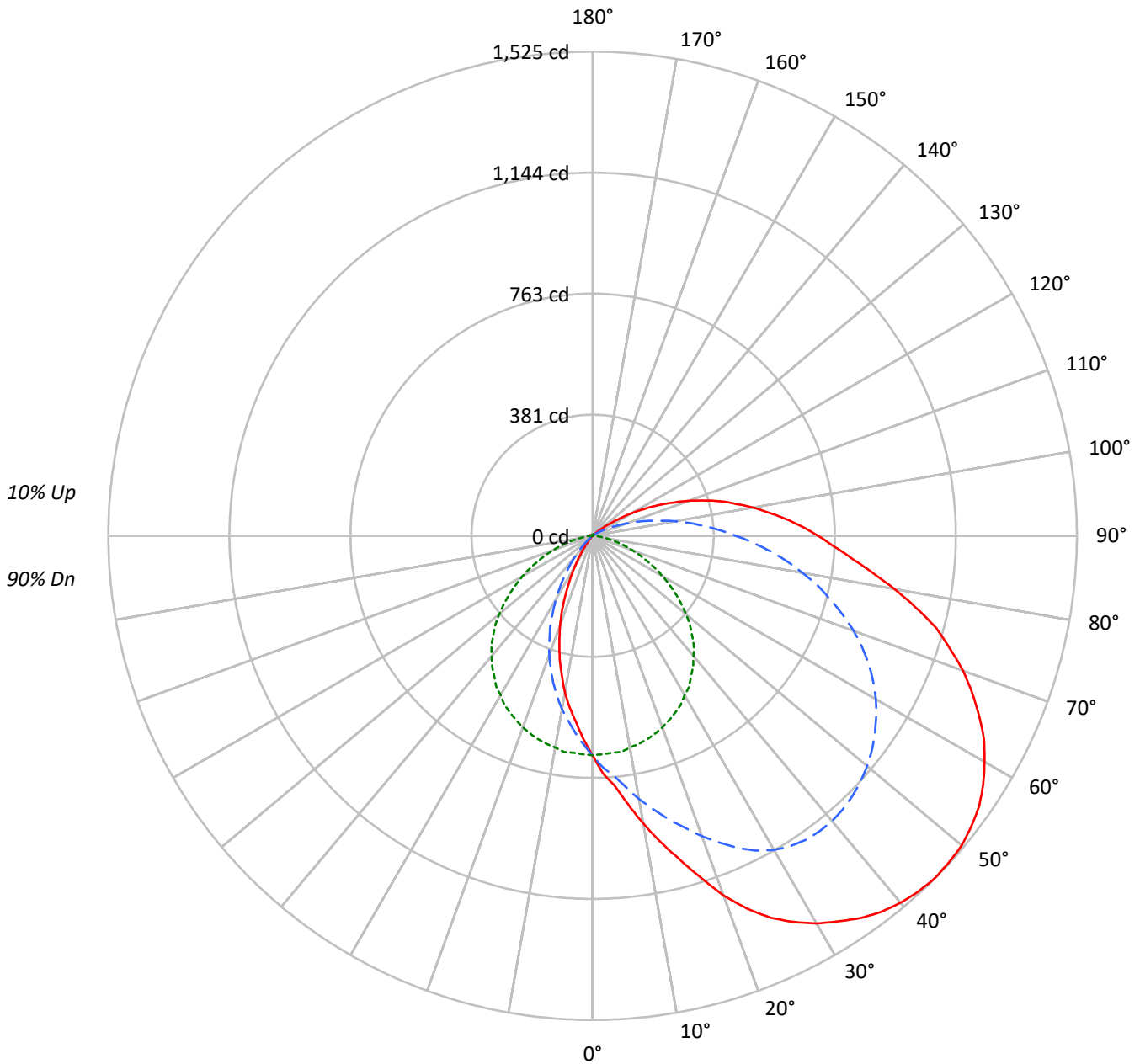
Lumens per Lamp: N/A  
Luminaire Lumens: 3417.9 lumens  
Efficiency: N/A  
Efficacy: 78.9 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 43.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

TEST NUMBER: P551358

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-82-87-ED1D

### Luminous Intensity Polar Plot





TEST NUMBER: P551358

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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					20										
RC	80					70					50					30					10					0					
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0				
RCR	0	117	117	117	117	113	113	113	113	105	105	105	99	99	99	93	93	93	93	93	93	93	93	93	93	93	90				
	1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	70	70	70	70	70	70	70	70	67				
	2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	56	56	56	56	56	56	56	56	53				
	3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	46	46	46	46	46	46	46	46	43				
	4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	38	38	38	38	38	38	38	38	36				
	5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	33	33	33	33	33	33	33	33	30				
	6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	28	28	28	28	28	28	28	28	26				
	7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	25	25	25	25	25	25	25	25	23				
	8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	22	22	22	22	22	22	22	22	20				
	9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	20	20	20	20	20	20	20	20	18				
	10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	18	18	18	18	18	18	18	18	16				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	7442	7442	7442
5°	8169	7333	6118
10°	9245	7243	5042
15°	10360	7151	3930
20°	11685	7035	2894
25°	12783	6900	1900
30°	13600	6718	1071
35°	14307	6523	471
40°	14934	6284	113
45°	15472	5982	0
50°	15923	5584	0
55°	16267	5076	0
60°	16440	4490	0
65°	16508	3820	0
70°	16453	3116	0
75°	16243	2297	13
80°	15585	1407	71
85°	15065	671	97



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.2	1.9
10°-20°	198.3	5.8
20°-30°	321.1	9.4
30°-40°	412.5	12.1
40°-50°	466.9	13.7
50°-60°	483.8	14.2
60°-70°	456.2	13.3
70°-80°	382.3	11.2
80°-90°	277.1	8.1
90°-100°	182.1	5.3
100°-110°	105.2	3.1
110°-120°	46.4	1.4
120°-130°	12.5	0.4
130°-140°	2.9	0.1
140°-150°	1.9	0.1
150°-160°	1.3	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	585.6	17.1
0°-40°	998.1	29.2
0°-60°	1948.8	57.0
0°-90°	3064.5	89.7
90°-120°	333.7	9.8
90°-150°	351.0	10.3
90°-180°	353.0	10.3
0°-180°	3417.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	691	691	691	691	691	
5°	789	758	686	623	591	80
15°	1054	924	663	479	400	304
25°	1327	1085	615	315	197	613
35°	1470	1169	540	153	48	922
45°	1525	1158	442	35	0	1177
55°	1486	1085	319	0	0	1327
65°	1343	960	190	0	0	1329
75°	1119	775	81	1	1	1174
85°	819	562	13	4	5	699
90°	710	450	4	5	6	389
95°	610	352	2	6	8	478
105°	419	182	2	4	7	442
115°	228	60	3	3	4	228
125°	68	8	4	3	4	68
135°	4	3	4	4	3	6
145°	1	3	4	3	3	1
155°	2	4	4	3	1	1
165°	2	3	4	3	0	1
175°	2	3	4	3	1	0
180°	3	3	3	3	3	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	691.4	691.4	691.4	691.4	691.4	691.4	691.4	691.4	691.4	691.4	691.4
2.5°	749.5	748.6	746.0	741.6	735.4	724.8	716.0	708.1	697.5	688.7	672.0
5°	789.1	784.7	781.2	776.8	762.7	753.0	737.2	719.6	702.8	686.1	652.6
7.5°	852.6	845.5	840.2	827.9	808.5	786.5	761.8	745.1	733.7	687.0	629.7
10°	920.4	914.2	903.6	881.6	857.8	826.1	790.9	751.3	716.0	677.3	609.5
12.5°	987.3	978.5	963.5	935.3	901.9	862.2	813.8	767.1	716.9	671.1	585.7
15°	1054.2	1044.6	1028.7	994.4	950.3	898.4	839.3	780.3	721.3	663.2	561.0
17.5°	1127.3	1114.1	1090.4	1051.6	996.1	931.8	862.2	790.9	719.6	653.5	534.6
20°	1205.7	1187.2	1161.7	1109.7	1044.6	968.8	885.1	801.5	718.7	642.1	504.7
22.5°	1270.9	1252.4	1224.2	1170.5	1092.1	999.6	904.5	808.5	715.2	628.8	476.5
25°	1327.3	1312.3	1281.5	1219.8	1137.0	1032.2	923.0	813.8	709.9	614.8	446.5
27.5°	1371.3	1357.2	1322.9	1259.5	1174.9	1061.3	937.1	816.4	702.8	600.7	415.7
30°	1410.1	1396.0	1354.6	1289.4	1200.4	1084.2	951.2	817.3	694.0	579.5	382.2
32.5°	1440.0	1426.8	1384.5	1314.9	1218.1	1100.0	959.1	816.4	682.6	564.6	346.1
35°	1470.0	1456.7	1407.4	1333.4	1231.3	1107.1	965.3	812.0	668.5	539.9	311.8
37.5°	1492.9	1477.9	1427.7	1345.8	1237.4	1108.8	964.4	805.9	653.5	519.6	277.4
40°	1508.7	1492.9	1439.1	1352.8	1239.2	1106.2	957.4	795.3	635.9	494.1	241.3
42.5°	1519.3	1501.7	1444.4	1363.4	1235.7	1099.2	946.8	782.1	616.5	472.1	207.0
45°	1524.6	1506.1	1445.3	1354.6	1229.5	1085.9	930.9	765.4	595.4	442.1	172.6
47.5°	1521.9	1501.7	1440.9	1344.9	1218.1	1071.9	913.3	745.1	569.8	415.7	140.0
50°	1517.5	1496.4	1431.2	1332.6	1202.2	1054.2	893.9	720.4	543.4	383.1	111.0
52.5°	1503.4	1482.3	1420.6	1314.9	1183.7	1034.0	867.5	694.9	515.2	351.4	84.6
55°	1485.8	1466.4	1402.1	1299.1	1159.9	1009.3	842.9	667.6	487.9	318.8	60.8
57.5°	1458.5	1440.9	1379.2	1273.5	1136.2	982.0	815.6	637.7	453.6	286.2	42.3
60°	1425.0	1407.4	1347.5	1244.5	1108.8	951.2	785.6	606.8	422.8	253.7	26.4
62.5°	1389.8	1373.1	1310.5	1208.4	1074.5	918.6	753.0	576.0	390.2	223.7	15.9
65°	1343.1	1327.3	1270.9	1165.2	1036.6	883.4	716.9	539.0	356.7	190.2	8.8
67.5°	1293.8	1279.7	1222.5	1125.6	992.6	844.6	679.9	502.9	321.5	161.2	4.4
70°	1241.0	1223.3	1170.5	1071.9	947.7	800.6	639.4	465.9	288.0	133.0	0.0
72.5°	1179.3	1166.1	1115.0	1021.7	895.7	753.9	598.0	425.4	251.0	105.7	0.9
75°	1119.4	1102.7	1056.0	967.9	844.6	704.6	552.2	387.5	214.9	81.0	0.9
77.5°	1041.9	1036.6	992.6	907.2	796.2	657.0	502.0	341.7	180.6	58.1	0.9
80°	964.4	959.1	924.8	846.4	739.8	600.7	455.3	298.6	147.1	38.8	0.9
82.5°	887.8	880.7	848.2	783.0	682.6	553.1	406.9	255.4	116.3	23.8	0.9
85°	819.1	810.3	775.0	715.2	623.6	499.4	356.7	213.1	86.3	13.2	1.8
87.5°	760.1	753.9	715.2	653.5	563.7	449.2	312.7	172.6	60.8	6.2	2.6
90°	709.9	696.7	662.3	597.1	507.3	393.7	266.0	138.3	40.5	3.5	3.5
92.5°	660.6	649.1	611.2	544.3	457.1	346.1	221.1	105.7	25.5	1.8	4.4
95°	609.5	597.1	560.1	498.5	406.0	297.7	181.4	77.5	14.1	1.8	4.4
97.5°	559.3	547.8	509.1	447.4	360.2	255.4	143.6	54.6	7.0	1.8	3.5
100°	512.6	499.4	464.1	402.5	314.4	213.1	111.0	35.2	4.4	1.8	3.5
102.5°	463.3	452.7	416.6	356.7	266.9	173.5	82.8	22.0	1.8	1.8	2.6
105°	419.2	406.0	370.8	309.1	227.2	136.5	58.1	13.2	1.8	1.8	2.6



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	273.0	262.5	231.6	179.7	115.4	53.7	15.9	2.6	2.6	2.6	2.6
115°	228.1	212.3	185.0	139.2	85.4	35.2	7.9	2.6	2.6	2.6	2.6
117.5°	182.3	169.1	149.7	105.7	56.4	22.9	4.4	2.6	2.6	2.6	2.6
120°	142.7	130.3	108.3	73.1	37.9	13.2	1.8	2.6	2.6	2.6	2.6
122.5°	102.2	92.5	73.1	47.6	22.9	6.2	2.6	2.6	3.5	3.5	2.6
125°	67.8	62.5	48.4	29.1	14.1	2.6	2.6	2.6	3.5	3.5	2.6
127.5°	44.0	39.6	28.2	16.7	6.2	2.6	2.6	3.5	3.5	3.5	2.6
130°	24.7	22.0	16.7	9.7	2.6	2.6	2.6	3.5	3.5	3.5	2.6
132.5°	14.1	13.2	8.8	1.8	2.6	2.6	2.6	3.5	3.5	3.5	3.5
135°	3.5	1.8	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	3.5
137.5°	0.9	0.9	1.8	1.8	2.6	2.6	3.5	4.4	4.4	4.4	3.5
140°	0.9	0.9	1.8	2.6	2.6	2.6	3.5	4.4	4.4	4.4	3.5
142.5°	0.9	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	3.5	3.5
145°	0.9	1.8	1.8	2.6	2.6	3.5	3.5	4.4	3.5	3.5	3.5
147.5°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	3.5	3.5
150°	0.9	1.8	1.8	2.6	3.5	3.5	3.5	4.4	3.5	3.5	3.5
152.5°	0.9	1.8	1.8	2.6	3.5	3.5	3.5	4.4	3.5	3.5	3.5
155°	1.8	1.8	1.8	2.6	3.5	3.5	3.5	4.4	3.5	3.5	4.4
157.5°	1.8	1.8	1.8	2.6	3.5	3.5	3.5	4.4	3.5	3.5	4.4
160°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	3.5	3.5	3.5	3.5
162.5°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	3.5	3.5	3.5	3.5
165°	1.8	1.8	1.8	1.8	2.6	2.6	3.5	3.5	3.5	3.5	3.5
167.5°	1.8	1.8	1.8	2.6	2.6	2.6	3.5	3.5	3.5	3.5	3.5
170°	1.8	1.8	1.8	2.6	2.6	2.6	3.5	4.4	4.4	4.4	4.4
172.5°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	4.4	4.4
175°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	4.4	4.4
177.5°	0.9	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	4.4	3.5
180°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	691.4	691.4	691.4
2.5°	657.9	645.6	642.1
5°	622.7	602.4	591.0
7.5°	587.5	560.1	546.9
10°	554.9	516.1	502.0
12.5°	516.1	471.2	449.2
15°	479.1	421.0	399.9
17.5°	437.7	372.6	347.9
20°	399.0	324.1	298.6
22.5°	354.9	276.6	248.4
25°	315.3	229.0	197.3
27.5°	271.3	180.6	153.2
30°	229.9	138.3	111.0
32.5°	190.2	101.3	76.6
35°	153.2	68.7	48.4
37.5°	118.0	42.3	24.7
40°	85.4	22.0	11.4
42.5°	57.2	10.6	6.2
45°	35.2	5.3	0.0
47.5°	20.3	0.0	0.0
50°	10.6	0.0	0.0
52.5°	4.4	0.0	0.0
55°	0.0	0.0	0.0
57.5°	0.0	0.0	0.0
60°	0.0	0.0	0.0
62.5°	0.0	0.0	0.0
65°	0.0	0.0	0.0
67.5°	0.0	0.0	0.0
70°	0.0	0.0	0.0
72.5°	0.0	0.0	0.0
75°	0.9	0.9	0.9
77.5°	0.9	1.8	2.6
80°	1.8	3.5	4.4
82.5°	3.5	4.4	4.4
85°	3.5	4.4	5.3
87.5°	4.4	5.3	6.2
90°	5.3	6.2	6.2
92.5°	5.3	7.0	7.0
95°	6.2	7.0	7.9
97.5°	7.0	7.9	7.9
100°	6.2	7.9	8.8
102.5°	5.3	7.9	7.9
105°	4.4	6.2	7.0





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CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-82-87-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.5	4.4	4.4
115°	2.6	3.5	4.4
117.5°	2.6	3.5	3.5
120°	2.6	2.6	3.5
122.5°	2.6	2.6	3.5
125°	2.6	2.6	3.5
127.5°	3.5	2.6	2.6
130°	2.6	2.6	2.6
132.5°	3.5	2.6	2.6
135°	3.5	2.6	2.6
137.5°	3.5	2.6	2.6
140°	3.5	2.6	2.6
142.5°	3.5	2.6	2.6
145°	2.6	2.6	2.6
147.5°	2.6	2.6	2.6
150°	2.6	2.6	1.8
152.5°	2.6	1.8	1.8
155°	2.6	1.8	0.9
157.5°	3.5	1.8	0.9
160°	2.6	1.8	0.9
162.5°	2.6	1.8	0.9
165°	2.6	1.8	0.0
167.5°	2.6	1.8	0.9
170°	2.6	1.8	0.9
172.5°	2.6	1.8	0.9
175°	2.6	0.9	0.9
177.5°	2.6	0.9	0.9
180°	2.6	2.6	2.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180°    - - 45°-225°    - - - - 90°-270°







107.5°	369.9	359.3	324.1	266.0	185.8	103.9	38.8	7.0	1.8	2.6	2.6
110°	322.4	313.5	277.4	221.1	149.7	77.5	25.5	4.4	2.6	2.6	2.6







107.5°	3.5	5.3	6.2
110°	3.5	4.4	5.3



(END OF REPORT)