



UL Verification Services Inc.  
7036 Snowdrift Road  
Allentown, PA 18106  
610-774-1300



## Photometric Test Report

Relevant Standards  
IES LM-79-2008  
ANSI C82.77-2002  
UL1598-2008

Prepared For  
**TechBrite LLC**  
David Brown  
1000 Kieley Pl  
Cincinnati, OH 45217

Catalog Number  
**N432SS1BC30AXXX**  
Order Number  
10994982  
Test Number  
1175737

Test Date

2015-11-30 - 2015-12-01

Prepared By

Javier Caban, Technician

Approved By

Carissa Samonte-cam, Project Handler

The results contained in this report pertain only to the tested sample.  
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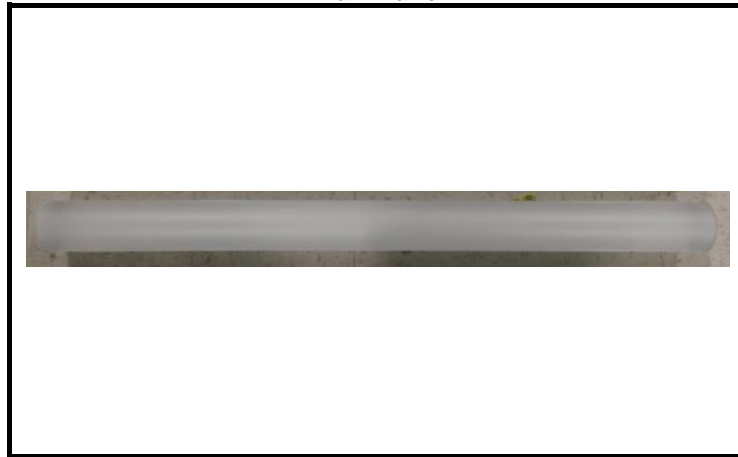
Laboratory results may not be representative of field performance  
Ballast factors have not been applied

Testing was performed in a 2-meter integrating sphere using the  $4\pi$  geometry method.  
Absorption correction was employed for Sphere measurement



**Luminaire Description:** Formed white enamel steel housing / reflector, frosted plastic lens enclosure  
**Lamp:** 112 white LEDs  
**Mounting:** Pendant  
**Ballast/Driver:** One Everline D10CC55UNVTZ-C

**Luminaire**



**Luminaire Characteristics**

Luminous Length: 46.50 in.  
Luminous Width: 3.750 in.  
Luminous Height: 2.00 in.

**Summary of Results**

**Integrating Sphere**

Luminous Flux: 3076 Lumens  
Efficacy: 113.9 lm/w  
CCT: 3514 K  
CRI (Ra): 85.2

**Distribution**

Total Luminaire Output: 3010 Lumens  
Luminaire Efficacy: 111.5 lm/w  
Maximum Candela: 979 Candela

**Electrical Data at 277 VAC**

Test Temperature: 24.1 °C  
Voltage: 277.0 VAC  
Current: 0.1056 A  
Power: 27.74 W  
Power Factor: 0.949  
Frequency: 60 Hz  
Current THD: 8.51 %

**In-Situ**

LED Temperature: 49.7 °C  
Driver Temperature: 40.0 °C  
Maximum LED Current: 0.07115 A

Temperature is offset to an ambient temperature of 25°C as described in UL1598-2008.



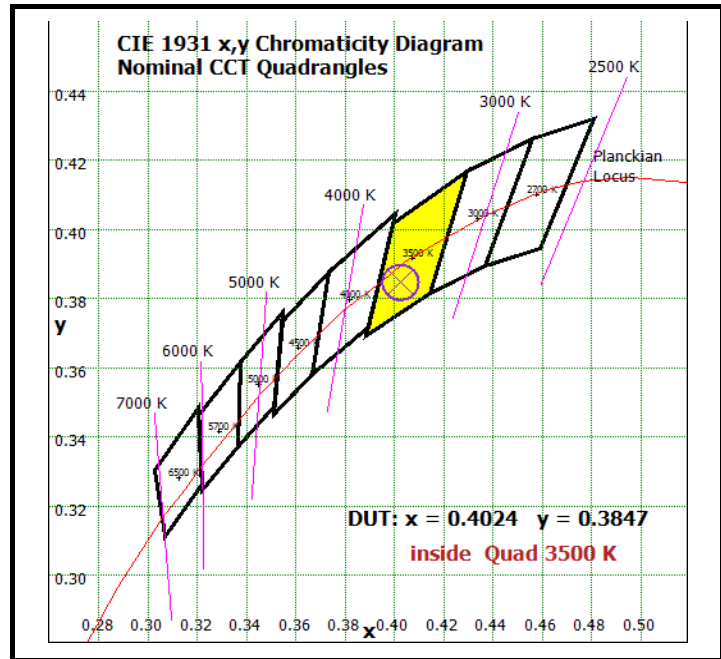
## Color Quality - Integrating Sphere

### Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.3 °C	120.0 VAC	0.2261 A	27.00 W	0.995	60 Hz	7.84 %

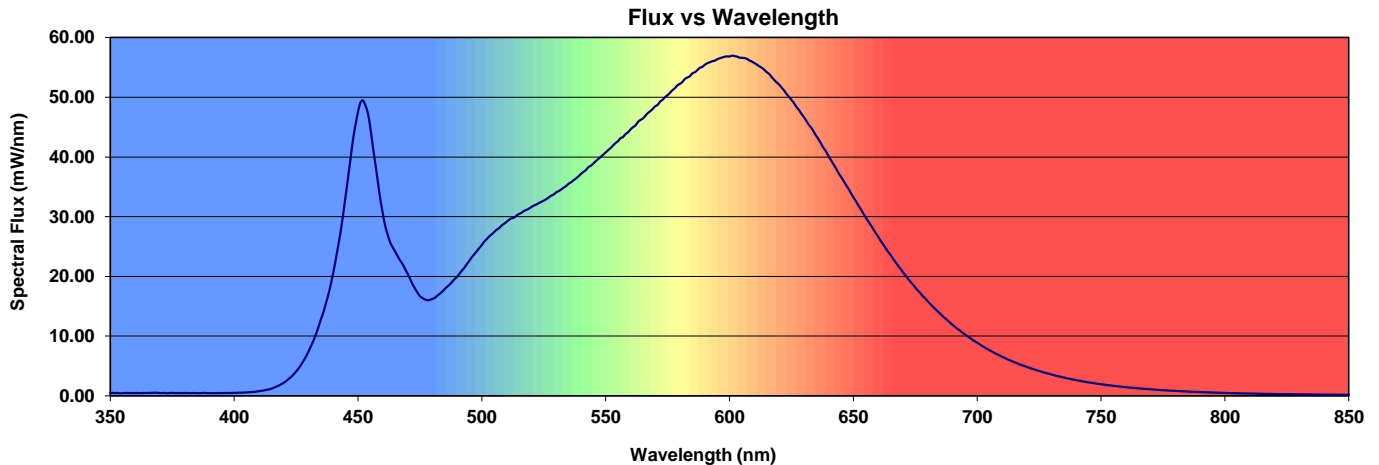
### Summary of Results

<b>Total Output:</b>	3076 Lumens
<b>Efficacy:</b>	113.9 lm/w
<b>CCT:</b>	3514 K
<b>CRI (Ra):</b>	85.2
<b>CRI (R9):</b>	19.0
Chromaticity (x):	0.4024
Chromaticity (y):	0.3847
Chromaticity (u):	0.2363
Chromaticity (v):	0.3389
Chromaticity (u'):	0.2363
Chromaticity (v'):	0.5083
Duv:	-0.0022



### Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
85.2	84.1	92.6	96.3	83.3	84.4	89.7	85.2	65.7	19.0	82.3	82.6	72.1	86.3	98.6





## Distribution - Goniophotometer

### Distribution Test Conditions

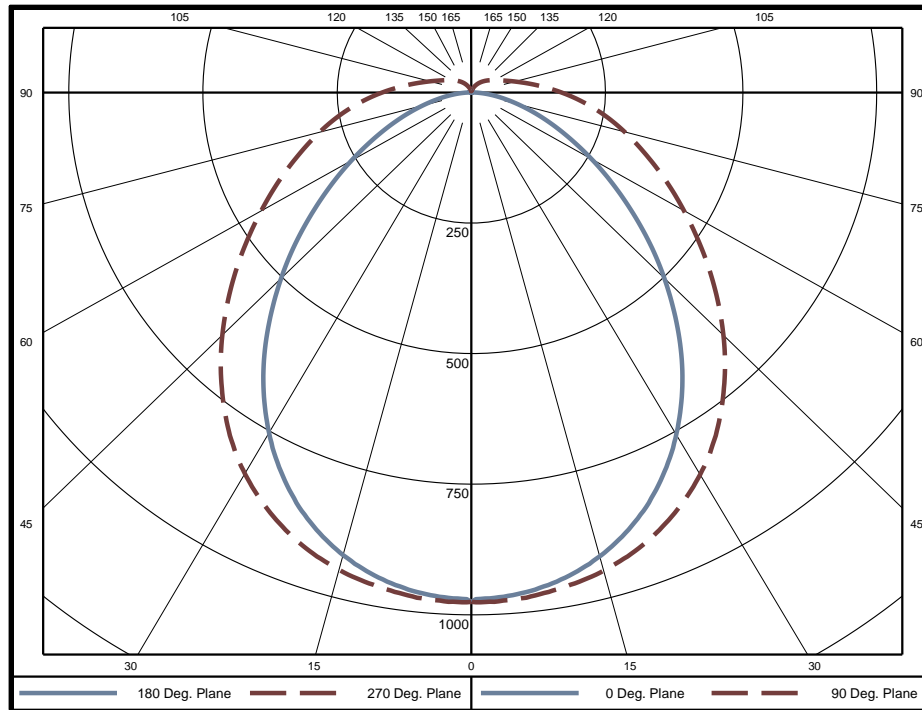
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.0 °C	120.0 VAC	0.2261 A	27.00 W	0.995	60 Hz	7.87 %

### Summary of Results

**Spacing Criteria**  
 0-180: 1.16  
 90-270: 1.16

**Total Lumen Output:** 3010 Lumens  
**Luminaire Efficacy:** 111.5 lm/w  
**Maximum Candela:** 979 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	23.3	0.8%	60-65	167.3	5.6%	120-125	12.7	0.4%
5-10	69.0	2.3%	65-70	145.7	4.8%	125-130	10.1	0.3%
10-15	112.2	3.7%	70-75	124.6	4.1%	130-135	7.9	0.3%
15-20	151.3	5.0%	75-80	104.8	3.5%	135-140	6.1	0.2%
20-25	184.5	6.1%	80-85	86.5	2.9%	140-145	4.5	0.1%
25-30	210.4	7.0%	85-90	69.6	2.3%	145-150	3.2	0.1%
30-35	227.6	7.6%	90-95	55.0	1.8%	150-155	2.2	0.1%
35-40	235.2	7.8%	95-100	43.0	1.4%	155-160	1.4	0.0%
40-45	233.7	7.8%	100-105	33.2	1.1%	160-165	0.9	0.0%
45-50	224.2	7.4%	105-110	25.7	0.9%	165-170	0.6	0.0%
50-55	208.5	6.9%	110-115	20.1	0.7%	170-175	0.4	0.0%
55-60	188.8	6.3%	115-120	16.0	0.5%	175-180	0.1	0.0%

Zone	Lumens	% of Luminaire
0-40	1214	40.3%
0-60	2069	68.7%
0-90	2767	91.9%
90-180	243	8.1%



**Candela Tabulation**  
Horizontal Angle (Degrees)

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
0	975.2	975.2	975.2	975.2	975.2	975.2	975.2	975.2	975.2	975.2	975.2	975.2	975.2	975.2	975.2	975.2
5	964.2	974.1	968.8	971.1	973.3	971.1	968.8	974.1	964.2	974.1	968.8	971.1	973.3	971.1	968.8	974.1
10	946.7	957.1	955.1	960.5	963.3	960.5	955.1	957.1	946.7	957.1	955.1	960.5	963.3	960.5	955.1	957.1
15	917.8	929.6	932.4	942.5	947.2	942.5	932.4	929.6	917.8	929.6	932.4	942.5	947.2	942.5	932.4	929.6
20	875.5	890.4	899.9	915.7	922.8	915.7	899.9	890.4	875.5	890.4	899.9	915.7	922.8	915.7	899.9	890.4
25	820.4	838.9	858.2	880.3	888.4	880.3	858.2	838.9	820.4	838.9	858.2	880.3	888.4	880.3	858.2	838.9
30	752.4	776.9	807.5	834.9	844.8	834.9	807.5	776.9	752.4	776.9	807.5	834.9	844.8	834.9	807.5	776.9
35	674.5	704.4	746.6	780.2	790.4	780.2	746.6	704.4	674.5	704.4	746.6	780.2	790.4	780.2	746.6	704.4
40	587.9	624.2	678.9	716.2	726.7	716.2	678.9	624.2	587.9	624.2	678.9	716.2	726.7	716.2	678.9	624.2
45	498.7	540.4	607.0	648.1	658.4	648.1	607.0	540.4	498.7	540.4	607.0	648.1	658.4	648.1	607.0	540.4
50	410.7	457.3	534.1	577.7	587.6	577.7	534.1	457.3	410.7	457.3	534.1	577.7	587.6	577.7	534.1	457.3
55	327.6	377.7	462.9	509.0	518.6	509.0	462.9	377.7	327.6	377.7	462.9	509.0	518.6	509.0	462.9	377.7
60	253.8	305.6	396.9	444.6	453.7	444.6	396.9	305.6	253.8	305.6	396.9	444.6	453.7	444.6	396.9	305.6
65	189.1	242.7	338.0	386.5	395.1	386.5	338.0	242.7	189.1	242.7	338.0	386.5	395.1	386.5	338.0	242.7
70	135.4	189.2	286.2	334.1	341.3	334.1	286.2	189.2	135.4	189.2	286.2	334.1	341.3	334.1	286.2	189.2
75	89.7	144.8	240.4	287.0	293.8	287.0	240.4	144.8	89.7	144.8	240.4	287.0	293.8	287.0	240.4	144.8
80	53.0	109.1	202.0	245.2	249.6	245.2	202.0	109.1	53.0	109.1	202.0	245.2	249.6	245.2	202.0	109.1
85	23.5	81.2	168.3	205.1	206.8	205.1	168.3	81.2	23.5	81.2	168.3	205.1	206.8	205.1	168.3	81.2
90	1.1	60.4	138.4	167.3	166.9	167.3	138.4	60.4	1.1	60.4	138.4	167.3	166.9	167.3	138.4	60.4
95	1.3	44.6	111.4	133.4	131.7	133.4	111.4	44.6	1.3	44.6	111.4	133.4	131.7	133.4	111.4	44.6
100	1.6	33.3	88.3	105.3	103.5	105.3	88.3	33.3	1.6	33.3	88.3	105.3	103.5	105.3	88.3	33.3
105	1.9	25.3	69.2	83.2	82.2	83.2	69.2	25.3	1.9	25.3	69.2	83.2	82.2	83.2	69.2	25.3
110	2.3	19.7	54.6	67.0	66.7	67.0	54.6	19.7	2.3	19.7	54.6	67.0	66.7	67.0	54.6	19.7
115	2.7	15.8	43.6	55.2	55.9	55.2	43.6	15.8	2.7	15.8	43.6	55.2	55.9	55.2	43.6	15.8
120	3.0	13.0	35.3	46.3	47.7	46.3	35.3	13.0	3.0	13.0	35.3	46.3	47.7	46.3	35.3	13.0
125	3.2	10.8	28.9	39.2	41.1	39.2	28.9	10.8	3.2	10.8	28.9	39.2	41.1	39.2	28.9	10.8
130	3.3	9.0	23.8	33.2	35.4	33.2	23.8	9.0	3.3	9.0	23.8	33.2	35.4	33.2	23.8	9.0
135	3.5	7.6	19.6	27.9	30.2	27.9	19.6	7.6	3.5	7.6	19.6	27.9	30.2	27.9	19.6	7.6
140	3.7	6.4	15.4	23.1	25.2	23.1	15.4	6.4	3.7	6.4	15.4	23.1	25.2	23.1	15.4	6.4
145	3.9	5.6	11.6	18.6	20.5	18.6	11.6	5.6	3.9	5.6	11.6	18.6	20.5	18.6	11.6	5.6
150	4.2	5.2	9.1	14.3	16.0	14.3	9.1	5.2	4.2	5.2	9.1	14.3	16.0	14.3	9.1	5.2
155	4.4	5.0	7.0	10.2	11.8	10.2	7.0	5.0	4.4	5.0	7.0	10.2	11.8	10.2	7.0	5.0
160	4.6	5.0	5.8	7.2	8.6	7.2	5.8	5.0	4.6	5.0	5.8	7.2	8.6	7.2	5.8	5.0
165	4.9	5.1	5.3	5.4	6.1	5.4	5.3	5.1	4.9	5.1	5.3	5.4	6.1	5.4	5.3	5.1
170	5.2	5.2	5.1	4.7	4.9	4.7	5.1	5.2	5.2	5.2	5.1	4.7	4.9	4.7	5.1	5.2
175	5.3	5.2	5.0	4.3	3.6	4.3	5.0	5.2	5.3	5.2	5.0	4.3	3.6	4.3	5.0	5.2
180	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7

**Average Luminance (cd/m<sup>2</sup>)**  
Horizontal Angle (Degrees)

	0	45	90
0	8668	8668	8668
45	6011	5421	5398
55	4783	4535	4562
65	3642	3794	3876
75	2656	3276	3374
85	1609	3034	2973



### Utilization of Lumens - Zonal Cavity Method

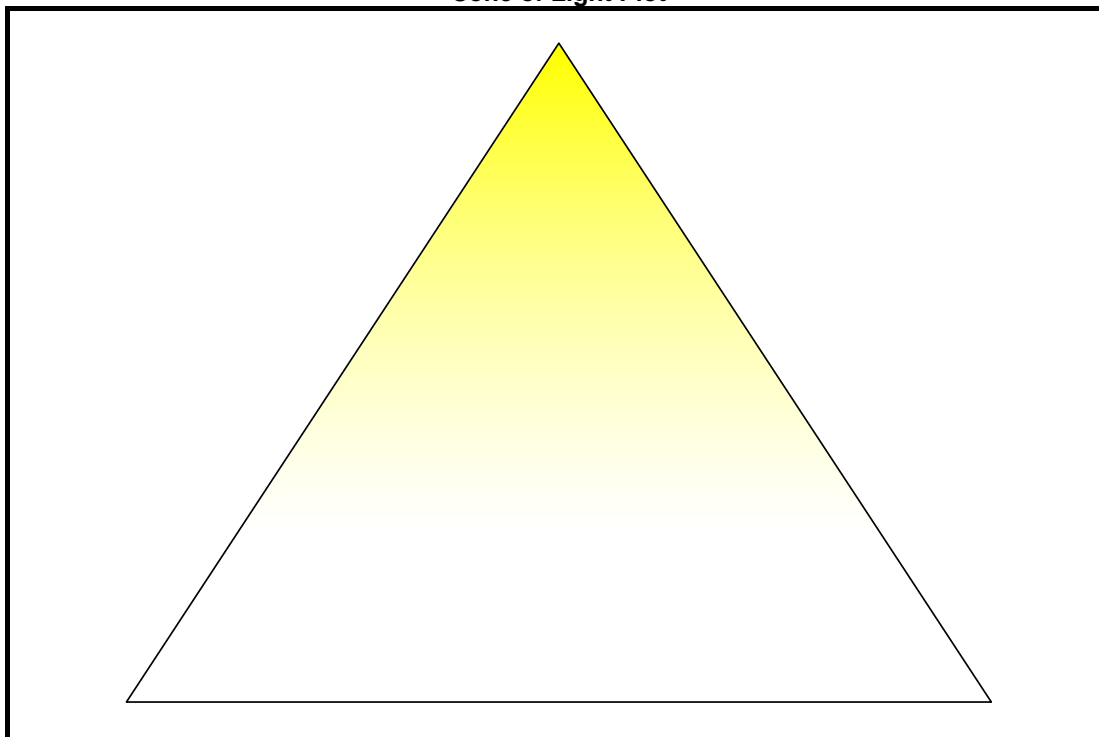
Effective Floor Cavity Reflectance 20%

Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																	
0	3526	3526	3526	3526	3415	3415	3415	3415	3210	3210	3210	3021	3021	3021	2848	2848	2848	2767
1	3177	3016	2873	2743	3068	2923	2793	2675	2749	2643	2546	2590	2504	2425	2442	2374	2310	2229
2	2882	2619	2402	2219	2778	2541	2342	2174	2393	2228	2086	2258	2122	2002	2132	2021	1922	1842
3	2626	2298	2045	1843	2529	2232	1998	1810	2107	1909	1747	1991	1825	1686	1883	1745	1627	1550
4	2405	2037	1768	1562	2316	1981	1731	1538	1874	1660	1490	1775	1592	1444	1682	1527	1399	1325
5	2213	1822	1548	1346	2132	1773	1518	1328	1682	1460	1291	1597	1405	1255	1517	1352	1219	1148
6	2045	1642	1371	1177	1971	1600	1346	1162	1521	1298	1132	1447	1252	1103	1378	1208	1075	1007
7	1897	1490	1225	1040	1830	1453	1205	1028	1385	1164	1004	1321	1126	980	1260	1088	957	893
8	1767	1360	1104	928	1706	1329	1087	918	1269	1052	898	1213	1019	878	1160	988	859	798
9	1651	1249	1002	836	1596	1221	987	827	1169	958	810	1119	929	793	1072	902	777	719
10	1548	1152	915	758	1498	1128	902	750	1082	877	736	1038	852	721	997	829	707	653

### Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	60.9	4.90
6.00	27.1	7.35
8.00	15.2	9.80
10.0	9.75	12.3
12.0	6.77	14.7
14.0	4.98	17.2
16.0	3.81	19.6

### Cone of Light Plot





## In-Situ Test

### In-Situ Test Conditions

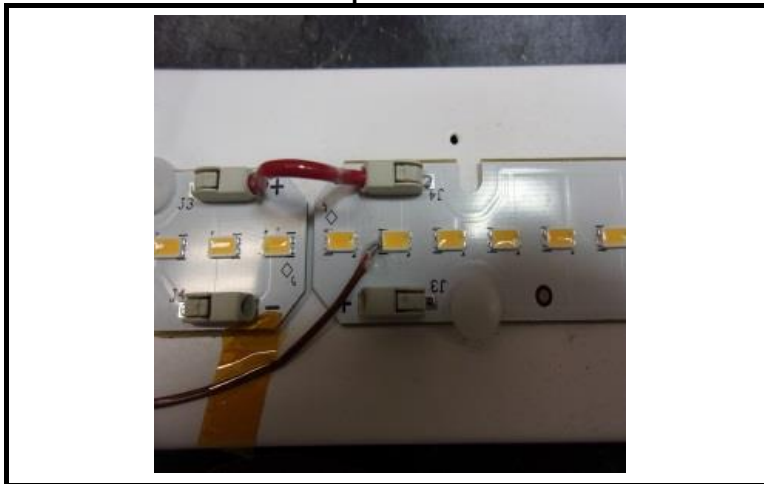
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
23.3 °C	119.3 VAC	N/A	N/A	N/A	60 Hz	N/A

### Summary of Results

LED Temperature: 49.7 °C  
Driver Temperature: 40.0 °C  
Maximum LED Current: 0.07115 A

Temperatures are offset to an ambient temperature of 25°C as described in UL1598-2008

### LED Temperature Location



### Driver Temperature Location

