TecNiq inc

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FMVSS108 CONFORMANCE DOCUMENTATION

T10-Rxxx-x STOP/TAIL/TURN LAMP

Photometry: FMVSS108 (October 2009), S7.6;
SAE J1889 (July 2005)

Moisture: FMVSS108 (October 2009)
SAE J575e (August 1970), Section F

Dust: FMVSS108 (October 2009)
SAE J575e (August 1970), Section G

Color: FMVSS108 (October 2009)
SAE J575e (August 1970), Section I

Vibration: FMVSS108 (October 2009),
SAE J575e (August 1970), Section E

Material/UV: FMVSS108 (October 2009),
SAE J576 – ASTM D 1003

Photometry – Passed

Moisture – Passed

Dust – Passed

Color – Passed

Vibration – Passed

Material - Passed

Signed J A [illegible]

Date 22 SEPT 2014

Photometry – Method: Take initial measurement, warm up for 30 minutes and test appropriate coordinates in type A goniometer. All points passed.

Corrosion/Moisture/Dust Penetration – Method: Submerge two samples in saturated salt/chlorine solution 24 hours illuminated with connections submerged. Remove and check for any sign of water penetration or corrosion on connectors. Passed

Extended Moisture Test – (TecNiq Internal) Submerge 10 samples in transparent tank containing water with light chlorine. Remove air from tank to vacuum of 25 in Hg. Air bubbles emanating from lamp or moisture ingress after test indicate failure. Passed

Color: Certified by LED lamp manufacturer. See attached documents. Passed

Vibration/Shock: 5 samples drop tested 15 ft onto concrete floor 30 times at random angles. Loose components, potting delamination, functional change or any physical change indicate failure. Vacuum moisture test performed after shock to confirm seal quality. Passed

Material – Certified by material manufacturer. Passed

Extended Material Test – UV exposure of samples of same material equivalent to 10 years of direct Florida sunlight. Any color change indicates failure. This test has been performed repeatedly by various divisions of Brunswick boat group multiple times per their internal marine requirements. All materials pass all tests.

Technician - JC

Sample Part Number/Description T10-RR00-1

Date 10/2/2008

Voltage 12.8 Vdc

Current .19 A

Distance = **128 in** **Multiplier** **113.778**

Initial Intensity (fc) at 0,0 - Not Measured

Final Intensity (fc) after Warmup at 0,0 - 1.496

Wide Vehicle Brake

Required Values Candellas

	-20	-15	-10	-5	0	5	10	15	20
10				16		16			
5	10		30		70		30		10
0			40	80	80	80	40		
-5	10		30		70		30		10
-10				16		16			

Measured Values (foot candles)

	-20	-15	-10	-5	0	5	10	15	20
10				0.62		0.56			
5	0.216		0.502		0.752		0.646		0.256
0			0.528	0.991	1.496	0.814	0.749		
-5	0.306		0.458		0.912		0.689		0.245
-10				0.483		0.566			

Measured Values Candellas

	-20	-15	-10	-5	0	5	10	15	20
10				70.54		63.72			
5	24.58		57.12		85.56		73.50		29.13
0			60.07	112.75	170.21	92.62	85.22		
-5	34.82		52.11		103.77		78.39		27.88
-10				54.95		64.40			

	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Required Zone	52	100	380	100	52
Measured Zone	184.889	169.301	564.907	237.113	185.116
Percent	355.556	169.301	148.660	237.113	355.993

Notes: **Passed**

Jim Klipfer 22-Sep-14