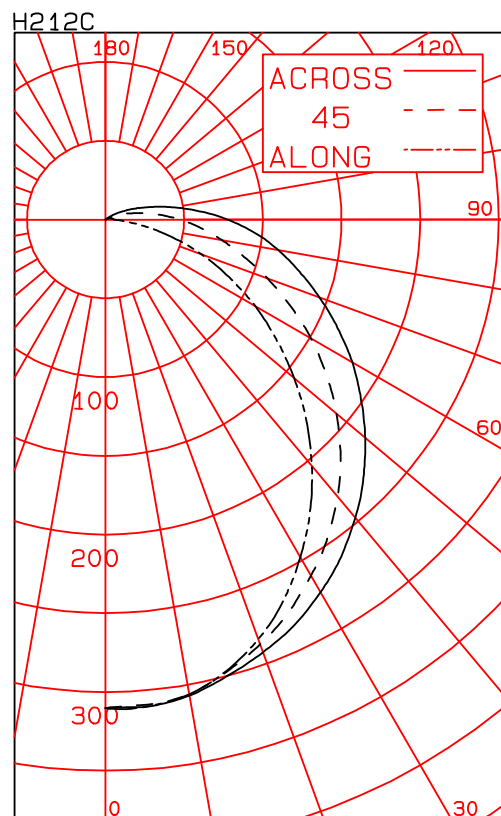


TEST REPORT NO. H212C
ACCREDITED BY NVLAP (LAB CODE 500084-0) TO ISO/IES 17025:2005 FOR IES LM-79-08

BEGHELLI CANADA TEMPESTA LED EMERGENCY LUMINAIRE CAT. NO. TA LED ACEM C
WITH SPECULAR INTERIOR AND LINEAR PRISMATIC DIFFUSING LENS
80 WHITE LEDS. LUMEN OUTPUT = 1048 LMS.
CUSTOM BEGHELLI LED CHARGER DRIVER



CANDLEPOWER SUMMARY

OUTPUT LUMENS

ANGLE	ALONG	22.5	45	67.5	ACROSS	
0	310	310	310	310	310	
5	310	309	309	310	310	30
15	297	296	297	299	300	84
25	267	269	275	282	284	127
35	227	233	246	258	261	153
45	181	191	211	227	232	161
55	133	146	171	192	198	151
65	87	100	130	154	163	126
75	45	60	91	118	128	94
85	12	31	61	86	95	63
90	5	20	47	69	77	
95	5	12	34	53	60	37
105	3	3	15	27	31	17
115	1	1	3	10	13	6
125	0	0	0	1	2	1
135	0	0	0	0	0	0
145	0	0	0	0	0	0
155	0	0	0	0	0	0
165	0	0	0	0	0	0
175	0	0	0	0	0	0
180	0	0	0	0	0	

ZONE	LUMENS	% LAMP	%LUMINAIRE
0-30	240	22.93	22.93
0-40	393	37.53	37.53
0-60	704	67.25	67.25
0-90	988	94.29	94.29
40-90	595	56.76	56.76
60-90	283	27.05	27.05
90-180	59	5.71	5.71
0-180	1048	100.00	100.00

** EFFICACY = 60.1 LMS/WATT **

LUMINANCE SUMMARY-CD. / SQ. M.

S/MH = 1.3

SC (ALONG) = 1.2, SC (ACROSS) = 1.3

ANGLE	ALONG	45	ACROSS
45	4872	5134	5577
55	4296	4802	5487
65	3654	4463	5500
75	2821	4214	5762
85	1556	4525	6771

PREPARED BY:

Charles Lison

DATE:

MAR 4, 2014

PREPARED FOR:

BEGHELLI CANADA
MARKHAM, ONTARIO

TESTED ACCORDING TO IES LM-79-2008. TEST DISTANCE EXCEEDS FIVE
TIMES THE GREATEST LUMINOUS OPENING OF LUMINAIRE

LUMENTRA, INC.
 160 FROBISHER DRIVE, UNIT 5
 WATERLOO, ONTARIO

TEST REPORT NO. H212C
 COMPUTED BY LSC PROGRAM **TEST-LITE**

BEGHELLI CANADA TEMPESTA LED EMERGENCY LUMINAIRE CAT. NO. TA LED ACEM C
 WITH SPECULAR INTERIOR AND LINEAR PRISMATIC DIFFUSING LENS
 80 WHITE LEDS. LUMEN OUTPUT = 1048 LMS.
 CUSTOM BEGHELLI LED CHARGER DRIVER

CANDLEPOWER DATA

ANGLE	PLANE						OUTPUT LUMENS
	ALONG	22.5	45	67.5	ACROSS	AVERAGE	
0	310	310	310	310	310	310	
5	310	309	309	310	310	309	30
10	306	305	306	306	307	306	
15	297	296	297	299	300	298	84
20	284	284	287	291	292	287	
25	267	269	275	282	284	275	127
30	248	251	261	270	273	261	
35	227	233	246	258	261	245	153
40	204	212	230	243	247	228	
45	181	191	211	227	232	209	161
50	157	168	192	210	216	189	
55	133	146	171	192	198	168	151
60	110	123	151	173	181	148	
65	87	100	130	154	163	127	126
70	65	79	110	136	145	108	
75	45	60	91	118	128	89	94
80	26	44	75	102	112	72	
85	12	31	61	86	95	58	63
90	5	20	47	69	77	45	
95	5	12	34	53	60	33	37
100	4	7	24	39	45	23	
105	3	3	15	27	31	16	17
110	2	1	9	17	21	10	
115	1	1	3	10	13	5	6
120	1	0	0	5	7	2	
125	0	0	0	1	2	0	1
130	0	0	0	0	0	0	
135	0	0	0	0	0	0	0
140	0	0	0	0	0	0	
145	0	0	0	0	0	0	0
150	0	0	0	0	0	0	
155	0	0	0	0	0	0	0
160	0	0	0	0	0	0	
165	0	0	0	0	0	0	0
170	0	0	0	0	0	0	
175	0	0	0	0	0	0	0
180	0	0	0	0	0	0	

LUMENTRA, INC.
 160 FROBISHER DRIVE, UNIT 5
 WATERLOO, ONTARIO

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BEGHELLI CANADA TEMPESTA LED EMERGENCY LUMINAIRE CAT. NO. TA LED ACEM C
 WITH SPECULAR INTERIOR AND LINEAR PRISMATIC DIFFUSING LENS
 80 WHITE LEDS. LUMEN OUTPUT = 1048 LMS.
 CUSTOM BEGHELLI LED CHARGER DRIVER

AVERAGE LUMINANCE DATA

ANGLE	ALONG	CD. / SQ. M.		(FOOTLAMBERTS)		ACROSS
		22.5	45	67.5		
0	6305(1840)	6305(1840)	6305(1840)	6305(1840)		6305(1840)
30	5598(1633)	5480(1599)	5544(1618)	5669(1654)		5752(1678)
40	5133(1498)	5060(1476)	5266(1537)	5493(1603)		5613(1638)
45	4872(1422)	4825(1408)	5134(1498)	5409(1578)		5577(1627)
50	4594(1340)	4586(1338)	4956(1446)	5321(1553)		5505(1606)
55	4296(1254)	4320(1260)	4802(1401)	5240(1529)		5487(1601)
60	4007(1169)	4051(1182)	4630(1351)	5183(1512)		5470(1596)
65	3654(1066)	3737(1090)	4463(1302)	5131(1497)		5500(1605)
70	3289(960)	3441(1004)	4312(1258)	5131(1497)		5559(1622)
75	2821(823)	3135(915)	4214(1229)	5216(1522)		5762(1681)
80	2249(656)	2883(841)	4270(1246)	5455(1592)		6115(1784)
85	1556(454)	2790(814)	4525(1320)	5923(1728)		6771(1976)

DETERMINED IN ACCORDANCE WITH CURRENT IES PUBLISHED PROCEDURES

LUMENTRA, INC.
160 FROBISHER DRIVE, UNIT 5
WATERLOO, ONTARIO

TEST REPORT NO. H212C
COMPUTED BY LSC PROGRAM **TEST-LITE**

BEGHELLI CANADA TEMPESTA LED EMERGENCY LUMINAIRE CAT. NO. TA LED ACEM C
WITH SPECULAR INTERIOR AND LINEAR PRISMATIC DIFFUSING LENS
80 WHITE LEDS. LUMEN OUTPUT = 1048 LMS.
CUSTOM BEGHELLI LED CHARGER DRIVER

COEFFICIENTS OF UTILIZATION

ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE = .20

CC WALL	80				70				50				30				10				0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	1.18	1.18	1.18	1.18	1.14	1.14	1.14	1.14	1.08	1.08	1.08	1.02	1.02	1.02	.97	.97	.97	.97	.97	.97	.94
1	1.06	1.01	.96	.92	1.03	.98	.94	.90	.93	.89	.86	.88	.85	.82	.83	.81	.79	.83	.81	.79	.76
2	.96	.88	.81	.75	.93	.85	.79	.73	.81	.75	.71	.77	.72	.68	.73	.69	.66	.73	.69	.66	.63
3	.88	.77	.69	.62	.85	.75	.67	.61	.71	.65	.59	.68	.62	.58	.64	.60	.56	.64	.60	.56	.53
4	.81	.69	.60	.53	.78	.67	.59	.52	.64	.57	.51	.61	.55	.50	.58	.53	.49	.58	.53	.49	.46
5	.74	.61	.52	.45	.72	.60	.51	.45	.57	.50	.44	.54	.48	.43	.52	.47	.42	.52	.47	.42	.40
6	.68	.55	.46	.39	.66	.53	.45	.39	.51	.44	.38	.49	.42	.37	.47	.41	.36	.47	.41	.36	.34
7	.63	.49	.40	.34	.61	.48	.40	.34	.46	.38	.33	.44	.37	.32	.42	.36	.32	.42	.36	.32	.30
8	.58	.44	.36	.30	.56	.43	.35	.30	.42	.34	.29	.40	.33	.29	.38	.32	.28	.38	.32	.28	.26
9	.54	.41	.32	.26	.52	.40	.32	.26	.38	.31	.26	.36	.30	.25	.35	.29	.25	.35	.29	.25	.23
10	.50	.37	.29	.23	.49	.36	.28	.23	.35	.28	.23	.33	.27	.22	.32	.26	.22	.32	.26	.22	.20

DETERMINED IN ACCORDANCE WITH CURRENT IES PUBLISHED PROCEDURES
LUMINAIRE INPUT WATTS = 17.4
LABORATORY RESULT MAY NOT BE REPRESENTATIVE OF FIELD PERFORMANCE.
ABSOLUTE PHOTOMETRY TAKEN.

LUMENTRA, INC.
160 FROBISHER DRIVE, UNIT 5
WATERLOO, ONTARIO

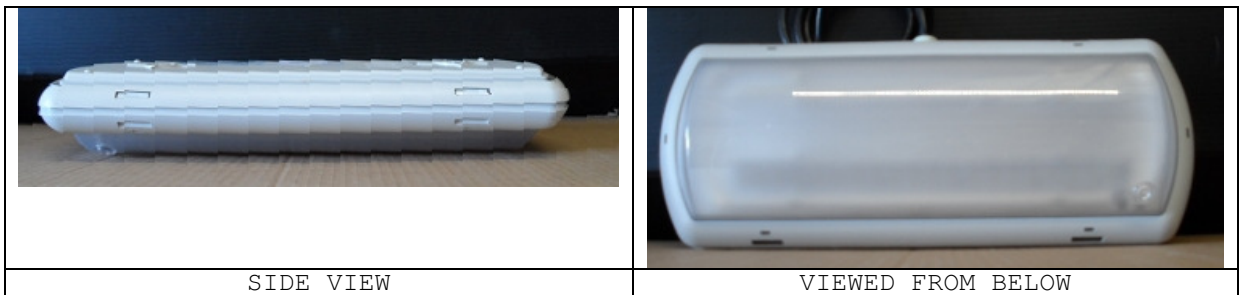
TEST REPORT NO. H212C

BEGHELLI CANADA TEMPESTA LED EMERGENCY LUMINAIRE CAT. NO. TA LED ACEM C
WITH SPECULAR INTERIOR AND LINEAR PRISMATIC DIFFUSING LENS
80 WHITE LEDS. LUMEN OUTPUT = 1048 LMS.
CUSTOM BEGHELLI LED CHARGER DRIVER

AMBIENT TEMPERATURE: 24.4 °C
STABILIZATION TIME: 1 HOUR 30 MINUTES
THE LUMINAIRE WAS OPERATED IN THE ORIENTATION INDICATED BY THE PICTURES BELOW
LSI MOVING MIRROR GONIOPHOTOMETER 6240T WAS USED

ELECTRICAL CONSUMPTION

INPUT VOLTAGE: 120.0 VRMS
INPUT CURRENT: 0.241 ARMS
INPUT WATTAGE: 17.44
POWER FACTOR: 0.603

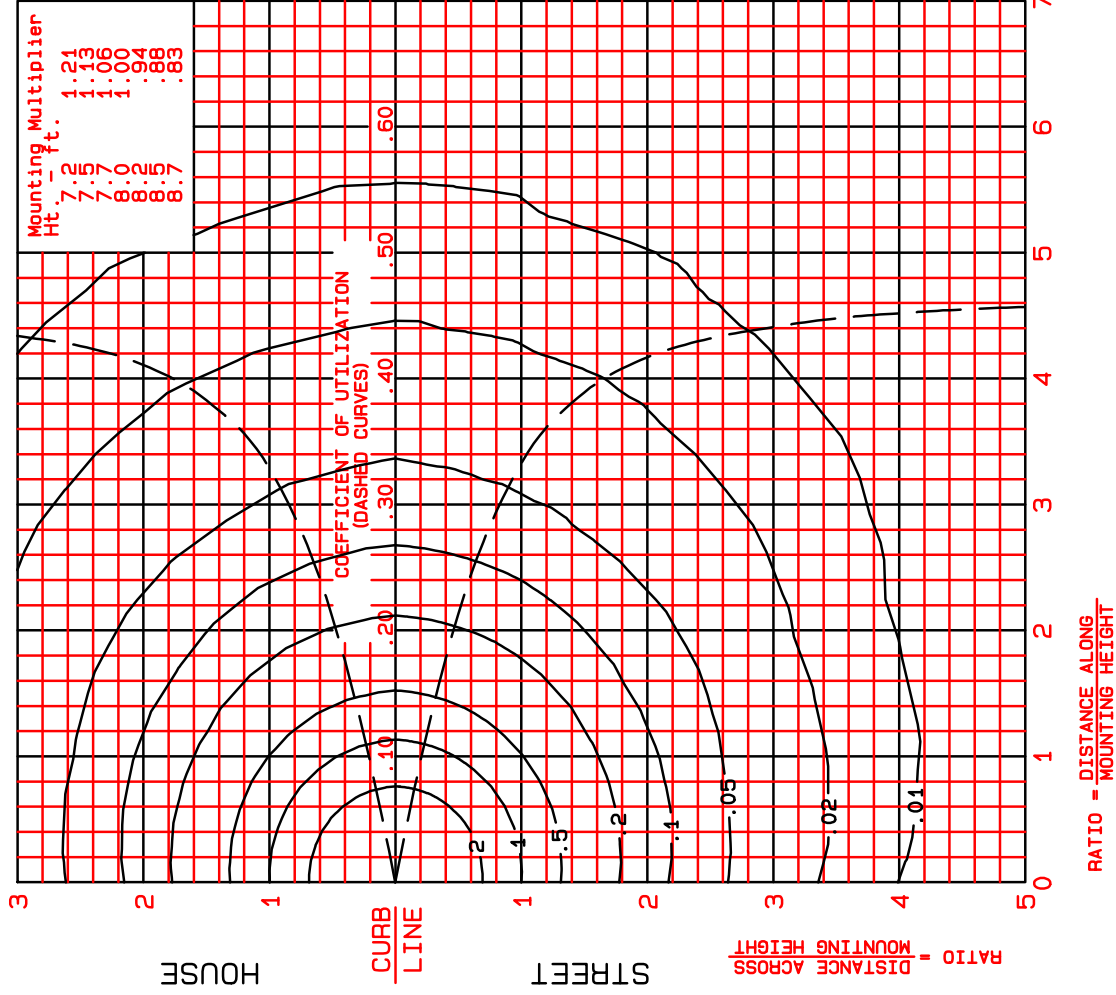


ISOFOOTCANDLE

TEST REPORT NO. H212C

BEGHELLI CANADA TEMPESTA LED EMERGENCY LUMINAIRE CAT. NO. TA LED ACEM C
WITH SPECULAR INTERIOR AND LINEAR PRISMATIC DIFFUSING LENS
80 WHITE LEDS. LUMEN OUTPUT = 1048 LMS.
CUSTOM BEGHELLI LED CHARGER DRIVER

MOUNTING HEIGHT FOR ISOFC 8.0 FEET



TEST REPORT NO. H212C

** FOOTCANDLE TABLE FOR SINGLE LUMINAIRE AT 8.0 FT. **

LATERAL
RATIOS

-3.00	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	.028	.030	.029	.026	.023	.019	.015	.012	.010	.008	.006	.005	.004	.004	.003
-2.50	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	.057	.060	.054	.046	.037	.028	.022	.017	.013	.010	.008	.006	.005	.004	.003
-2.00	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	.13	.12	.10	.083	.060	.043	.030	.022	.016	.012	.009	.007	.006	.005	.004
-1.50	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	.33	.31	.23	.15	.097	.063	.041	.028	.020	.014	.011	.008	.006	.005	.004
-1.00	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	.99	.82	.50	.27	.15	.087	.053	.034	.023	.016	.012	.009	.007	.005	.004
-.50	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	2.8	2.0	.96	.42	.20	.10	.063	.039	.026	.018	.013	.010	.007	.006	.005
HOUSE		CURB LINE													
-----	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
STREET	4.8	3.1	1.2	.51	.23	.12	.069	.042	.028	.019	.014	.010	.008	.006	.005
.50	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	2.9	2.1	.97	.42	.20	.10	.063	.039	.026	.018	.013	.010	.007	.006	.005
1.00	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	1.0	.84	.51	.27	.15	.087	.053	.034	.023	.016	.012	.009	.007	.005	.004
1.50	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	.33	.32	.23	.15	.099	.063	.042	.028	.020	.014	.011	.008	.006	.005	.004
2.00	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	.13	.13	.11	.086	.062	.043	.031	.022	.016	.012	.009	.007	.006	.005	.004
2.50	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	.059	.062	.056	.048	.038	.029	.022	.017	.013	.010	.008	.006	.005	.004	.003
3.00	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	.030	.032	.031	.027	.024	.019	.016	.013	.010	.008	.007	.005	.004	.004	.003
3.50	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	.016	.018	.018	.017	.015	.013	.011	.009	.008	.006	.005	.004	.004	.003	.003
4.00	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	.009	.010	.011	.011	.010	.009	.008	.007	.006	.005	.004	.004	.003	.003	.002
4.50	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	.006	.007	.007	.007	.007	.006	.006	.005	.005	.004	.004	.003	.003	.002	.002
5.00	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	.004	.004	.005	.005	.005	.004	.004	.004	.004	.003	.003	.003	.002	.002	.002
	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
	LONGITUDINAL MOUNTING HEIGHT RATIOS														

CORRECTION FACTORS FOR OTHER MOUNTING HEIGHTS: SEE ISOFOOTCANDLE PAGE