



itl boulder

THE LIGHT CENTER OF THE INDUSTRY SINCE 1955

INDEPENDENT TESTING LABORATORIES, INC.
3386 LONGHORN ROAD, BOULDER, CO 80302 USA

PHONE: (303)442-1255 • FAX: (303)449-5274 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL59191

DATE: 09/17/07

PREPARED FOR: AMERICAN BRIGHT OPTOELECTRONICS CORP.

CATALOG NUMBER: AB-ET3BC-42

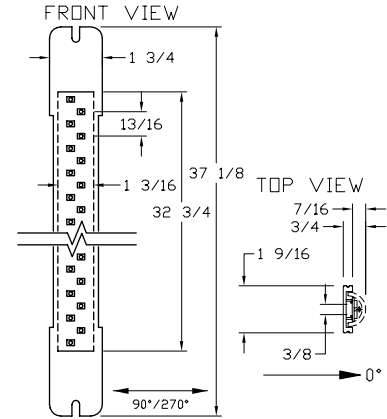
LUMINAIRE: MOLDED BLACK PLASTIC HOUSING, MOLDED BLACK PLASTIC END CAPS, THREE WHITE CIRCUIT BOARDS EACH WITH 26 LEDS, CLEAR CURVED GLASS LENS.

LAMP: SEVENTY-EIGHT WHITE LIGHT EMITTING DIODES (LEDS), LEDS AIMED AT THE HORIZON.

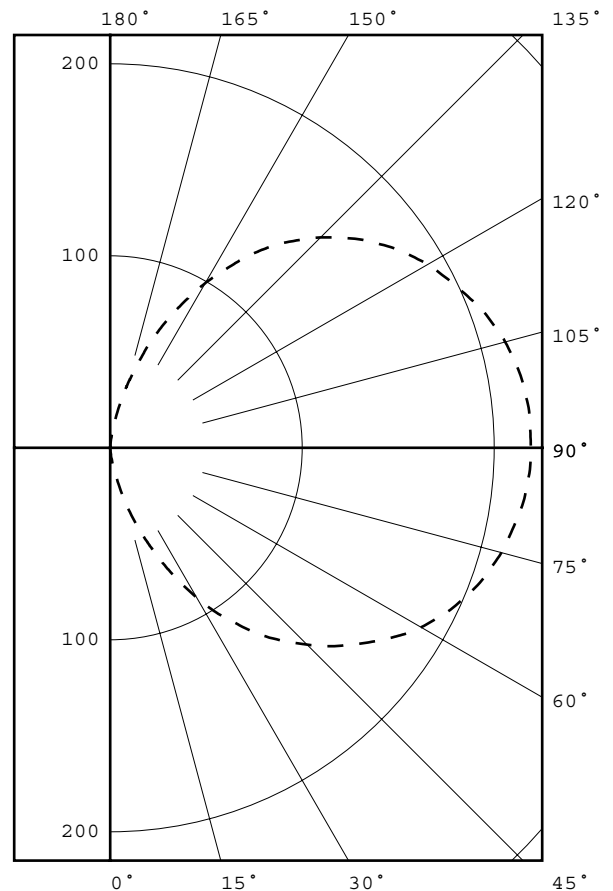
TOTAL INPUT WATTS= 9.6 AT 120.0 VOLTS

MOUNTING: SURFACE

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120VAC) TO THE LED ASSEMBLY.



CANDELA DISTRIBUTION						FLUX
0.0	45.0	90.0	135.0	180.0		
0	0	0	0	0	0	0
5	2	1	0	0	0	0
15	27	13	0	0	0	2
25	68	36	0	0	0	8
35	110	63	0	0	0	19
45	145	86	0	0	0	31
55	174	106	0	0	0	44
65	197	122	0	0	0	55
75	211	134	0	0	0	64
85	218	139	0	0	0	68
90	219	140	0	0	0	
95	219	140	0	0	0	69
105	213	135	0	0	0	64
115	199	125	0	0	0	56
125	181	111	0	0	0	45
135	155	93	0	0	0	33
145	120	71	0	0	0	20
155	77	42	0	0	0	9
165	33	17	0	0	0	2
175	2	1	0	0	0	0
180	0	0	0	0	0	0

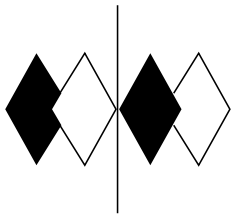


LEGEND:
0-deg: - - - - -
90-deg: _____
180-deg: - . - . - .

ZONAL LUMEN SUMMARY		
ZONE	LUMENS	%FIXT
0- 30	10	1.7
0- 40	29	4.9
0- 60	103	17.5
0- 90	290	49.1
90-120	189	32.1
90-130	235	39.8
90-150	288	48.8
90-180	300	50.9
0-180	590	100.0

CIE TYPE - DIRECT-INDIRECT

Checked *B.HYRE*
Approved *R.BEATTIE*



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LUMINANCE DATA IN CANDELA/SQ M			
ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 90-DEG	AVERAGE 180-DEG
45	8170.	0.	0.
55	8451.	0.	0.
65	8672.	0.	0.
75	8695.	0.	0.
85	8728.	0.	0.



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CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0
0.0	0	0	0	0	0	0	0	0	0
5.0	2	1	1	0	0	0	0	0	0
10.0	11	9	5	2	0	0	0	0	0
15.0	27	22	13	4	0	0	0	0	0
20.0	47	39	25	8	0	0	0	0	0
25.0	68	58	36	11	0	0	0	0	0
30.0	90	77	50	16	0	0	0	0	0
35.0	110	96	63	21	0	0	0	0	0
40.0	129	113	75	26	0	0	0	0	0
45.0	145	128	86	31	0	0	0	0	0
50.0	160	142	96	35	0	0	0	0	0
55.0	174	155	106	40	0	0	0	0	0
60.0	187	167	115	44	0	0	0	0	0
65.0	197	176	122	47	0	0	0	0	0
70.0	205	184	129	51	0	0	0	0	0
75.0	211	190	134	53	0	0	0	0	0
80.0	215	194	137	55	0	0	0	0	0
85.0	218	196	139	56	0	0	0	0	0
90.0	219	198	140	57	0	0	0	0	0
95.0	219	198	140	57	0	0	0	0	0
100.0	217	195	138	56	0	0	0	0	0
105.0	213	191	135	54	0	0	0	0	0
110.0	207	186	131	52	0	0	0	0	0
115.0	199	179	125	50	0	0	0	0	0
120.0	191	171	118	47	0	0	0	0	0
125.0	181	161	111	43	0	0	0	0	0
130.0	169	150	103	39	0	0	0	0	0
135.0	155	137	93	34	0	0	0	0	0
140.0	139	122	82	29	0	0	0	0	0
145.0	120	104	71	24	0	0	0	0	0
150.0	99	85	57	18	0	0	0	0	0
155.0	77	65	42	13	0	0	0	0	0
160.0	55	46	30	9	0	0	0	0	0
165.0	33	26	17	5	0	0	0	0	0
170.0	14	11	7	2	0	0	0	0	0
175.0	2	2	1	0	0	0	0	0	0
180.0	0	0	0	0	0	0	0	0	0



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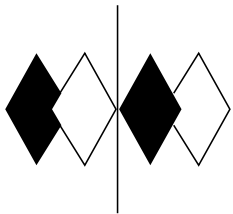
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ZONAL LUMEN SUMMARY

0- 5	0.
5- 10	0.
10- 15	1.
15- 20	2.
20- 25	3.
25- 30	5.
30- 35	8.
35- 40	11.
40- 45	14.
45- 50	17.
50- 55	20.
55- 60	23.
60- 65	26.
65- 70	29.
70- 75	31.
75- 80	33.
80- 85	34.
85- 90	34.
90- 95	35.
95-100	34.
100-105	33.
105-110	31.
110-115	29.
115-120	27.
120-125	24.
125-130	21.
130-135	18.
135-140	15.
140-145	12.
145-150	9.
150-155	6.
155-160	4.
160-165	2.
165-170	1.
170-175	0.
175-180	0.



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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

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	0
0	107	107	107	107	98	98	98	98	83	83	83	69	69	69	55	55	55	49
1	91	85	78	73	83	77	72	67	64	59	56	51	48	45	40	37	35	29
2	81	71	62	55	73	64	57	50	52	46	41	41	37	33	31	28	25	20
3	72	60	50	43	65	55	46	39	44	37	32	35	30	25	26	22	19	14
4	65	52	42	34	59	47	38	31	38	31	26	30	24	20	22	18	14	10
5	59	45	36	28	54	41	32	26	33	26	21	26	20	16	19	15	12	8
6	54	40	31	24	49	36	28	22	29	23	17	23	18	13	17	13	9	6
7	50	36	27	20	45	32	24	18	26	20	15	21	15	11	15	11	8	5
8	46	32	23	17	42	29	21	16	24	17	13	19	13	10	14	10	7	4
9	43	29	21	15	39	26	19	14	21	15	11	17	12	8	13	9	6	3
10	40	26	18	13	36	24	17	12	20	14	9	15	11	7	11	8	5	3

ALL CANDELA, LUMENS, LUMINANCE, COEFFICIENT OF UTILIZATION AND VCP VALUES IN THIS REPORT ARE BASED ON ABSOLUTE PHOTOMETRY.

NOTE: THE ZONAL CAVITY CALCULATION TECHNIQUE IS ACCURATE WHEN LUMINAIRES WITH SYMMETRIC CANDELA DISTRIBUTIONS ARE EMPLOYED AND WHEN THE LUMINAIRES ARE LOCATED SYMMETRICALLY THROUGHOUT THE ROOM. THIS UNIT HAS SPECIAL CHARACTERISTICS AND THEREFORE THESE COEFFICIENTS SHOULD BE USED WITH CAUTION.