

MEGA-LITE - LED SPOTLIGHT, CAT# N-E COLOR CANNON
 WITH BUILT IN FAN AND NO OVERALL LENS
 36 LEDS WITH INDIVIDUAL LENSES. LUMEN RATING: 2296 Lms.
 OPERATING AT 120 VAC AND 104 WATTS

SPOTLIGHT SUMMARY:

BEAM ANGLE	22.9 Meters
FIELD ANGLE	40.3 Meters
MAX. INTENSITY (CANDLEPOWER)	12319 Candelas
CENTER INTENSITY (CANDLEPOWER)	12319 Candelas
BEAM LUMENS	1116 Lms
BEAM EFFICIENCY	48.6 Percent
FIELD LUMENS	1935 Lms
FIELD EFFICIENCY	84.3 Percent
TOTAL LUMENS	2296. Lms
EFFICACY	22.1 LUMENS/WATT

PREPARED FOR:

CERTIFIED BY:

MEGA-LITE
 SAN ANTONIO, TX

DATE: Sep 23 2009

FIELD ANGLE IS DEFINED BY 10 PERCENT OF MAX. INTENSITY (CANDLEPOWER)
 BEAM ANGLE IS DEFINED BY 50 PERCENT OF MAX. INTENSITY (CANDLEPOWER)

TESTED IN ACCORDANCE WITH IES PROCEDURES

TEST DISTANCE EXCEEDS FIVE TIMES THE GREATEST
 LUMINOUS OPENING OF LUMINAIRE.

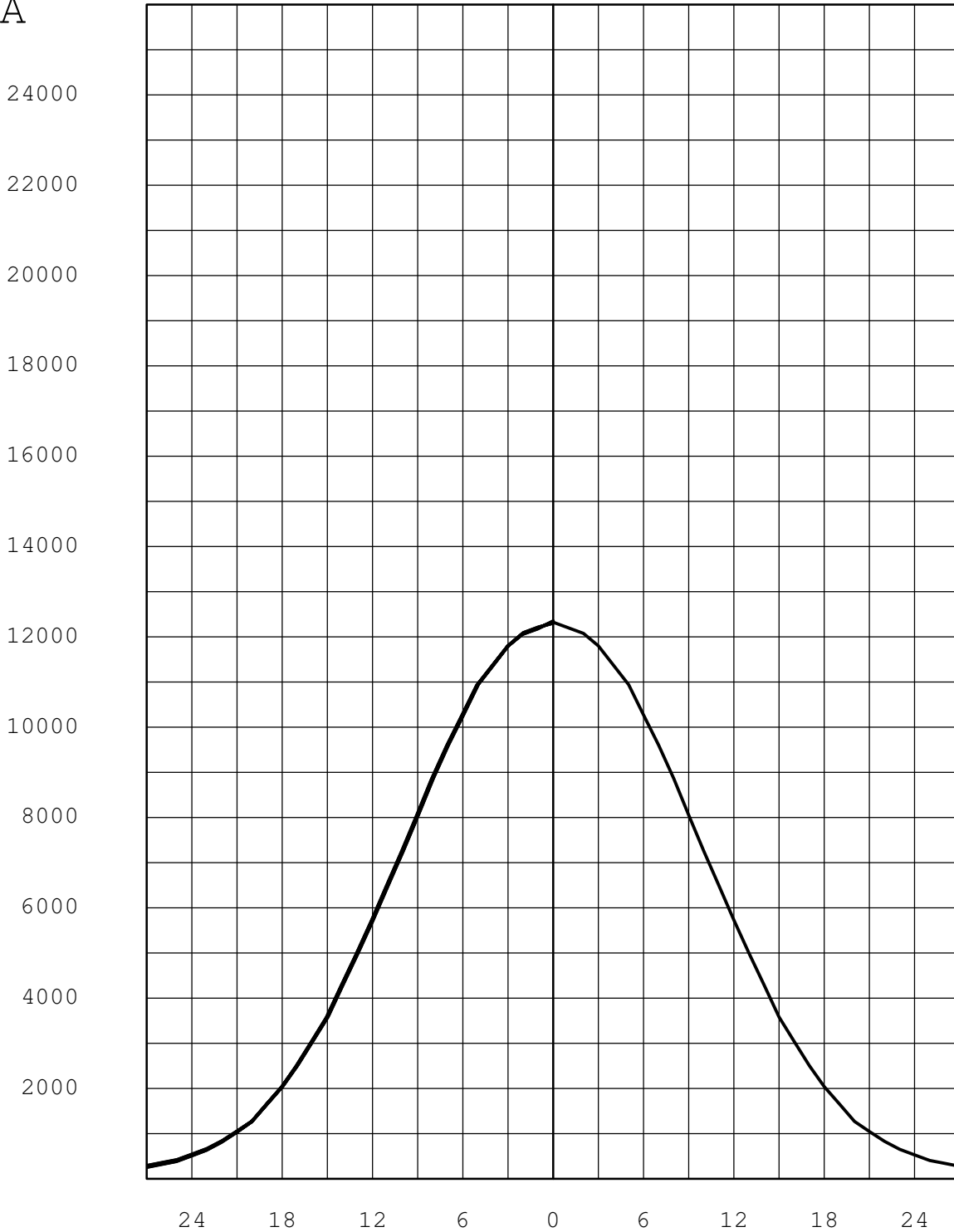
LABORATORY RESULTS MAY NOT BE REPRESENTATIVE OF FIELD PERFORMANCE
 BALLAST FACTORS HAVE NOT BEEN APPLIED

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SPOTLIGHT DATA

CANDLEPOWER THROUGH ORIGIN

C
A
N
D
E
L
A
S



UPPER &
LEFT

ANGLE - VERTICAL & HORIZONTAL

LOWER &
RIGHT

LIGHTING SCIENCES, INC.
7826 E. EVANS RD.
SCOTTSDALE, AZ, USA 85260

CERTIFIED TEST REPORT No. LSI 25711

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BEAM AVERAGE ILLUMINANCE, BEAM AND FIELD DIAMETERS

DISTANCE METERS	FIELD AVERAGE ILLUMINANCE	BEAM DIAMETER	FIELD DIAMETER
10	123.2	4.0	7.3
15	54.7	6.1	11.0
20	30.8	8.1	14.7
25	19.7	10.1	18.4
30	13.7	12.1	22.0
35	10.1	14.2	25.7
40	7.7	16.2	29.4
45	6.1	18.2	33.1
50	4.9	20.2	36.7
55	4.1	22.2	40.4
60	3.4	24.3	44.1
65	2.9	26.3	47.8
70	2.5	28.3	51.4
75	2.2	30.3	55.1
80	1.9	32.3	58.8
85	1.7	34.4	62.4
90	1.5	36.4	66.1
95	1.4	38.4	69.8
100	1.2	40.4	73.5
105	1.1	42.5	77.1
110	1.0	44.5	80.8
115	0.9	46.5	84.5
120	0.9	48.5	88.2
125	0.8	50.5	91.8
130	0.7	52.6	95.5
135	0.7	54.6	99.2
140	0.6	56.6	102.9
145	0.6	58.6	106.5
150	0.5	60.7	110.2

DISTANCE IS IN METERS, ILLUMINANCE IS IN LUX

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TABULATION OF INTENSITY(CANDLEPOWER) VS ANGLE
 FOR ILLUMINANCE CALCULATION
 Candelas

ANGLE	COSINE	CP	ANGLE	COSINE	CP	ANGLE	COSINE	CP
	OF ANGLE			OF ANGLE			OF ANGLE	
0	1.00	12319	30	0.87	160	60	0.50	24
1	1.00	12197	31	0.86	142	61	0.48	23
2	1.00	12074	32	0.85	124	62	0.47	22
3	1.00	11798	33	0.84	109	63	0.45	20
4	1.00	11368	34	0.83	99	64	0.44	19
5	1.00	10937	35	0.82	89	65	0.42	17
6	0.99	10266	36	0.81	81	66	0.41	16
7	0.99	9595	37	0.80	73	67	0.39	15
8	0.99	8858	38	0.79	67	68	0.37	13
9	0.99	8053	39	0.78	62	69	0.36	12
10	0.98	7248	40	0.77	56	70	0.34	11
11	0.98	6486	41	0.75	53	71	0.33	10
12	0.98	5725	42	0.74	50	72	0.31	8
13	0.97	4991	43	0.73	48	73	0.29	7
14	0.97	4285	44	0.72	45	74	0.28	6
15	0.97	3579	45	0.71	43	75	0.26	5
16	0.96	3039	46	0.69	42	76	0.24	3
17	0.96	2500	47	0.68	41	77	0.22	1
18	0.95	2038	48	0.67	39	78	0.21	0
19	0.95	1654	49	0.66	38	79	0.19	0
20	0.94	1270	50	0.64	37	80	0.17	0
21	0.93	1047	51	0.63	36	81	0.16	0
22	0.93	824	52	0.62	34	82	0.14	0
23	0.92	650	53	0.60	33	83	0.12	0
24	0.91	527	54	0.59	32	84	0.10	0
25	0.91	403	55	0.57	31	85	0.09	0
26	0.90	338	56	0.56	29	86	0.07	0
27	0.89	273	57	0.54	28	87	0.05	0
28	0.88	225	58	0.53	27	88	0.03	0
29	0.87	192	59	0.52	26	89	0.02	0

ILLUMINANCE AT ANY POINT ON A PLANE PERPENDICULAR TO THE LUMINAIRE
 AXIS CAN BE CALCULATED BY EITHER OF TWO METHODS:

METHOD 1: $ILLUMINANCE = \frac{CANDLEPOWER \times \cosine \text{ OF ANGLE}}{DISTANCE \text{ SQUARED FROM SPOTLIGHT TO POINT}}$

METHOD 2: $ILLUMINANCE = \frac{CANDLEPOWER \times \cosine \text{ CUBED OF ANGLE}}{DISTANCE \text{ SQUARED FROM SPOTLIGHT TO POINT}}$

DISTANCE IS IN METERS, ILLUMINANCE IS IN LUX

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CONE OF LIGHT TABULATION
 (ILLUMINANCES ON A PLANE PERPENDICULAR TO LAMP AXIS)

DISTANCE FROM LUMINAIRE	ILLUMINANCE DIRECTLY ON AXIS	DIAMETER OF CIRCLE	ILLUMINANCE AT EDGE OF CIRCLE
1.0	12319.0	0.4	6159.5
1.5	5475.1	0.6	2737.6
2.0	3079.8	0.8	1539.9
2.5	1971.0	1.0	985.5
3.0	1368.8	1.2	684.4
3.5	1005.6	1.4	502.8
4.0	769.9	1.6	385.0
4.5	608.3	1.7	304.2
5.0	492.8	1.9	246.4
5.5	407.2	2.1	203.6
6.0	342.2	2.3	171.1
6.5	291.6	2.5	145.8
7.0	251.4	2.7	125.7
7.5	219.0	2.9	109.5
8.0	192.5	3.1	96.2
8.5	170.5	3.3	85.3
9.0	152.1	3.5	76.0
9.5	136.5	3.7	68.2
10.0	123.2	3.9	61.6
11.0	101.8	4.3	50.9
12.0	85.5	4.7	42.8
13.0	72.9	5.0	36.4
14.0	62.9	5.4	31.4
15.0	54.8	5.8	27.4
16.0	48.1	6.2	24.1
17.0	42.6	6.6	21.3
18.0	38.0	7.0	19.0
19.0	34.1	7.4	17.1
20.0	30.8	7.8	15.4
21.0	27.9	8.1	14.0
22.0	25.5	8.5	12.7
23.0	23.3	8.9	11.6
24.0	21.4	9.3	10.7
25.0	19.7	9.7	9.9
26.0	18.2	10.1	9.1
27.0	16.9	10.5	8.4
28.0	15.7	10.9	7.9
29.0	14.6	11.3	7.3
30.0	13.7	11.6	6.8

TOTAL CONE ANGLE = 22.0 DEGREES
 (BASED UPON POINT WHERE ILLUMINANCE DROPS TO: 50% OF CENTER VALUE)

NOTE: DISTANCE IN FEET, ILLUMINANCE IN FOOTCANDLES
 DISTANCE IS IN METERS, ILLUMINANCE IS IN LUX