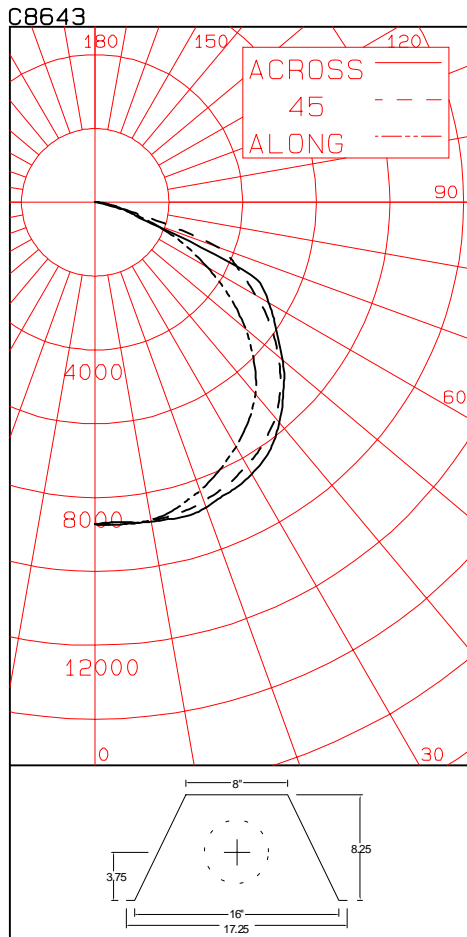


CERTIFIED TEST REPORT NO. LSC8643
 COMPUTED BY LSC PROGRAM **TEST-LITE**

BELL LIGHTING TECHNOLOGIES INDOOR HID FIXTURE CAT. NO. LF400 MH
 WITH WHITE COATED INTERIOR
 ONE 400W CLEAR METAL HALIDE LAMP. LUMEN RATING = 32000 LMS.

CANDLEPOWER SUMMARY

OUTPUT
LUMENS



ANGLE	ALONG	22.5	45	67.5	ACROSS	
0	8722	8722	8722	8722	8722	
5	8754	8769	8749	8720	8693	847
10	8732	8768	8747	8726	8785	
15	8575	8613	8708	8803	8847	2459
20	8315	8388	8608	8804	8803	
25	7999	8149	8455	8646	8650	3869
30	7648	7858	8215	8463	8495	
35	7248	7551	7967	8244	8239	4919
40	6773	7144	7618	7863	7779	
45	6097	6566	7104	7300	7218	5318
50	5319	5837	6496	6663	6634	
55	4455	4988	5818	6067	6004	4939
60	3523	4167	5026	5521	5433	
65	2621	3337	4293	4876	4679	3796
70	1670	2534	3565	1886	1456	
75	743	1273	1139	889	896	1215
80	219	291	420	491	507	
85	23	55	143	176	190	158
90	0	0	0	0	0	

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LAMP	%LUMINAIRE
0-30	7175	22.42	26.07
0-40	12094	37.80	43.95
0-60	22352	69.85	81.22
0-90	27521	86.00	100.00
40-90	15426	48.21	56.05
60-90	5168	16.15	18.78
90-180	0	.00	.00
0-180	27521	86.00	100.00

** EFFICIENCY = 86.0% **

LUMINANCE SUMMARY-CD. / SQ. M.

PAINT REFLECTANCE = .89 S/MH = 1.4
 SC(ALONG) = 1.3, SC(ACROSS) = 1.4

ANGLE	ALONG	45	ACROSS
45	36713	42943	43631
55	33077	43356	44744
65	26406	43407	47321
75	12227	18756	14805
85	1116	6981	9327

CERTIFIED BY:

DATE:

MAR 15, 2001

PREPARED FOR:

BELL LIGHTING TECHNOLOGIES INC.
 VICTORIA, BRITISH COLUMBIA

TESTED ACCORDING TO IES PROCEDURES. TEST DISTANCE EXCEEDS FIVE
 TIMES THE GREATEST LUMINOUS OPENING OF LUMINAIRE.

LIGHTING SCIENCES CANADA LTD.
 440 PHILLIP ST. UNIT 19
 WATERLOO, ONTARIO CANADA N2L 5R9

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 WITH WHITE COATED INTERIOR
 ONE 400W CLEAR METAL HALIDE LAMP. LUMEN RATING = 32000 LMS.

CANDLEPOWER DATA
 IN 2.5 DEGREE STEPS

ANGLE	PLANE						OUTPUT LUMENS
	ALONG	22.5	45	67.5	ACROSS	AVERAGE	
.0	8722	8722	8722	8722	8722	8722	
2.5	8735	8757	8745	8718	8679	8732	
5.0	8754	8769	8749	8720	8693	8741	847
7.5	8755	8749	8759	8714	8748	8744	
10.0	8732	8768	8747	8726	8785	8750	
12.5	8676	8693	8749	8770	8804	8738	
15.0	8575	8613	8708	8803	8847	8709	2459
17.5	8436	8499	8692	8832	8846	8666	
20.0	8315	8388	8608	8804	8803	8590	
22.5	8162	8264	8545	8742	8708	8496	
25.0	7999	8149	8455	8646	8650	8394	3869
27.5	7816	7997	8353	8556	8595	8278	
30.0	7648	7858	8215	8463	8495	8152	
32.5	7443	7719	8117	8374	8387	8031	
35.0	7248	7551	7967	8244	8239	7877	4919
37.5	7020	7383	7794	8093	8028	7698	
40.0	6773	7144	7618	7863	7779	7475	
42.5	6459	6883	7374	7623	7517	7217	
45.0	6097	6566	7104	7300	7218	6907	5318
47.5	5722	6234	6815	6994	6968	6597	
50.0	5319	5837	6496	6663	6634	6243	
52.5	4902	5413	6166	6366	6301	5886	
55.0	4455	4988	5818	6067	6004	5526	4939
57.5	3992	4597	5447	5816	5728	5180	
60.0	3523	4167	5026	5521	5433	4798	
62.5	3064	3731	4648	5211	5161	4426	
65.0	2621	3337	4293	4876	4679	4039	3796
67.5	2154	2931	3980	3940	2767	3328	
70.0	1670	2534	3565	1886	1456	2387	
72.5	1216	2038	2204	1137	1098	1634	
75.0	743	1273	1139	889	896	1030	1215
77.5	369	494	622	677	689	580	
80.0	219	291	420	491	507	391	
82.5	116	158	263	335	328	244	
85.0	23	55	143	176	190	120	158
87.5	0	6	25	39	41	23	
90.0	0	0	0	0	0	0	

LIGHTING SCIENCES CANADA LTD.
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BELL LIGHTING TECHNOLOGIES INDOOR HID FIXTURE CAT. NO. LF400 MH
 WITH WHITE COATED INTERIOR
 ONE 400W CLEAR METAL HALIDE LAMP. LUMEN RATING = 32000 LMS.

AVERAGE LUMINANCE DATA

ANGLE	ALONG	CD. / SQ. M. (FOOTLAMBERTS)			
		22.5	45	67.5	ACROSS
0	37139(10839)	37139(10839)	37139(10839)	37139(10839)	37139(10839)
30	37603(10975)	38745(11308)	40499(11820)	41714(12175)	41772(12191)
40	37649(10988)	39817(11621)	42386(12371)	43824(12790)	43244(12621)
45	36713(10715)	39590(11555)	42943(12533)	44090(12868)	43631(12734)
50	35235(10283)	38812(11328)	43040(12561)	44262(12918)	43944(12825)
55	33077(9654)	37094(10826)	43356(12654)	45175(13185)	44744(13059)
60	30007(8758)	35610(10393)	42851(12506)	47137(13757)	46270(13504)
65	26406(7707)	33656(9823)	43407(12669)	49283(14384)	47321(13811)
70	20789(6067)	31663(9241)	44511(12991)	23528(6867)	18125(5290)
75	12227(3568)	21022(6135)	18756(5474)	14671(4281)	14805(4321)
80	5379(1570)	7160(2089)	10345(3019)	12064(3521)	12428(3627)
85	1116(326)	2694(786)	6981(2037)	8610(2513)	9327(2722)

DETERMINED IN ACCORDANCE WITH CURRENT IES PUBLISHED PROCEDURES

LIGHTING SCIENCES CANADA LTD.
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BELL LIGHTING TECHNOLOGIES INDOOR HID FIXTURE CAT. NO. LF400 MH
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 ONE 400W CLEAR METAL HALIDE LAMP. LUMEN RATING = 32000 LMS.

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	0
RCR																		
0	1.02	1.02	1.02	1.02	1.00	1.00	1.00	1.00	.96	.96	.96	.91	.91	.91	.88	.88	.88	.86
1	.95	.91	.88	.85	.93	.89	.86	.84	.86	.83	.81	.82	.80	.78	.79	.78	.76	.74
2	.87	.81	.76	.71	.85	.79	.74	.70	.76	.72	.69	.74	.70	.67	.71	.68	.66	.64
3	.80	.71	.65	.60	.78	.70	.64	.59	.68	.63	.58	.65	.61	.57	.63	.60	.56	.55
4	.73	.64	.57	.51	.72	.63	.56	.51	.60	.55	.50	.59	.54	.50	.57	.52	.49	.47
5	.67	.57	.49	.44	.65	.56	.49	.44	.54	.48	.43	.52	.47	.43	.51	.46	.42	.40
6	.62	.50	.43	.38	.60	.50	.43	.37	.48	.42	.37	.47	.41	.37	.45	.40	.36	.35
7	.56	.45	.38	.33	.55	.44	.37	.32	.43	.36	.32	.42	.36	.32	.41	.35	.31	.30
8	.52	.41	.33	.28	.51	.40	.33	.28	.39	.32	.28	.38	.32	.28	.37	.32	.28	.26
9	.48	.37	.30	.25	.47	.36	.29	.25	.35	.29	.25	.34	.28	.24	.33	.28	.24	.23
10	.45	.33	.26	.22	.44	.33	.26	.22	.32	.26	.22	.31	.25	.21	.30	.25	.21	.20

DETERMINED IN ACCORDANCE WITH CURRENT IES PUBLISHED PROCEDURES
 LUMINAIRE INPUT WATTS = 440.0
 LABORATORY RESULT MAY NOT BE REPRESENTATIVE OF FIELD PERFORMANCE.
 BALLAST FACTORS HAVE NOT BEEN APPLIED.