

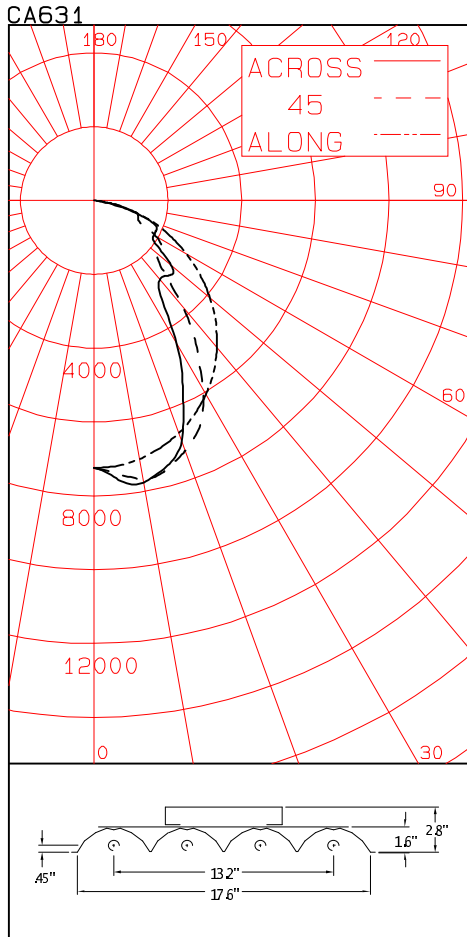


LIGHTING SCIENCES CANADA LTD.

440 Phillip St., Unit 19, Waterloo, Ontario, Canada N2L 5R9
 Tel: (519) 746-3140 Fax: (519) 746-3156 lsc@lightingsciences.ca

CERTIFIED TEST REPORT NO. LSC A631
 COMPUTED BY LSC PROGRAM **TEST-LITE**

CUSTOM LIGHTING T5 4L SURFACE MOUNT 4' FIXTURE CAT. NO. CL-HI-5-HO-1(4 LAMP)
 WITH SPECULAR REFLECTOR
 FOUR 54W T5 HO FLUORESCENT LAMPS. LUMEN RATING = 4400 LMS.
 ADVANCE CENTIUM 120-277V 3 OR 4-LAMP ELECTRONIC BALLAST NO. ICN-4S54-90C-2LS-G



CANDLEPOWER SUMMARY OUTPUT LUMENS

ANGLE	ALONG	22.5	45	67.5	ACROSS	
0		7248	7248	7248	7248	
5		7215	7318	7450	7542	725
10		7107	7386	7673	7723	7757
15		6934	7403	7555	7475	7486
20		6707	7283	7215	7078	6952
25		6416	6972	6774	6007	5689
30		6069	6538	5910	4919	4477
35		5663	6047	4859	3546	3152
40		5189	5459	3710	2833	2787
45		4678	4686	2604	2654	2867
50		4097	3690	2213	2730	2719
55		3505	2727	2187	2225	2006
60		2880	1747	1928	1754	1877
65		2271	1221	1351	1719	1865
70		1675	1064	1271	1609	1618
75		1072	665	1101	1015	946
80		524	524	507	312	258
85		75	119	29	0	0
90		0	0	0	0	0

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LAMP	%LUMINAIRE
0-30	5754	32.70	35.28
0-40	8714	49.52	53.43
0-60	13589	77.21	83.32
0-90	16310	92.67	100.00
40-90	7595	43.16	46.57
60-90	2721	15.46	16.68
90-180	0	.00	.00
0-180	16310	92.67	100.00

** EFFICIENCY = 92.7% **

LUMINANCE SUMMARY-CD. / SQ. M.

ANGLE	ALONG	45	ACROSS
45	12734	7115	7835
55	11762	7368	6758
65	10342	6173	8526
75	7971	8200	7062
85	1663	651	0

S/MH = 1.0
 SC(ALONG) = 1.2, SC(ACROSS) = 1.0

CERTIFIED BY:

Charles Sisson

DATE:
 MAR 8, 2005

PREPARED FOR:

CUSTOM LIGHTING LTD.
 EDMONTON, ALBERTA

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

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CANDLEPOWER DATA
 IN 2.5 DEGREE STEPS

ANGLE	PLANE						OUTPUT LUMENS
	ALONG	22.5	45	67.5	ACROSS	AVERAGE	
.0	7248	7248	7248	7248	7248	7248	
2.5	7233	7279	7323	7349	7369	7313	
5.0	7215	7318	7450	7542	7596	7429	725
7.5	7171	7369	7558	7702	7765	7524	
10.0	7107	7386	7673	7723	7757	7554	
12.5	7024	7399	7665	7613	7624	7500	
15.0	6934	7403	7555	7475	7486	7411	2081
17.5	6823	7365	7385	7311	7291	7280	
20.0	6707	7283	7215	7078	6952	7101	
22.5	6567	7147	7016	6631	6326	6810	
25.0	6416	6972	6774	6007	5689	6452	2948
27.5	6243	6765	6394	5439	5139	6072	
30.0	6069	6538	5910	4919	4477	5660	
32.5	5869	6298	5340	4221	3724	5164	
35.0	5663	6047	4859	3546	3152	4715	2960
37.5	5430	5760	4316	3052	2873	4320	
40.0	5189	5459	3710	2833	2787	3997	
42.5	4919	5114	3078	2666	2785	3678	
45.0	4678	4686	2604	2654	2867	3429	2666
47.5	4399	4200	2353	2735	2907	3235	
50.0	4097	3690	2213	2730	2719	3010	
52.5	3810	3233	2173	2538	2362	2758	
55.0	3505	2727	2187	2225	2006	2474	2209
57.5	3195	2230	2146	1868	1886	2196	
60.0	2880	1747	1928	1754	1877	1952	
62.5	2572	1405	1585	1725	1871	1734	
65.0	2271	1221	1351	1719	1865	1590	1608
67.5	1970	1112	1291	1715	1825	1504	
70.0	1675	1064	1271	1609	1618	1398	
72.5	1360	914	1251	1340	1300	1209	
75.0	1072	665	1101	1015	946	948	987
77.5	779	566	819	653	587	680	
80.0	524	524	507	312	258	433	
82.5	279	376	196	78	58	205	
85.0	75	119	29	0	0	46	127
87.5	0	0	0	0	0	0	
90.0	0	0	0	0	0	0	

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AVERAGE LUMINANCE DATA

ANGLE	ALONG	CD. / SQ. M. (FOOTLAMBERTS)				ACROSS
		22.5	45	67.5		
0	13953(4072)	13953(4072)	13953(4072)	13953(4072)	13953(4072)	13953(4072)
30	13489(3936)	14573(4253)	13170(3843)	10960(3198)	9950(2904)	
40	13038(3805)	13754(4014)	9330(2723)	7138(2083)	7003(2044)	
45	12734(3716)	12773(3728)	7115(2076)	7247(2115)	7835(2286)	
50	12268(3580)	11091(3237)	6628(1934)	8196(2392)	8142(2376)	
55	11762(3433)	9169(2676)	7368(2150)	7489(2185)	6758(1972)	
60	11088(3236)	6749(1970)	7431(2169)	6771(1976)	7224(2108)	
65	10342(3018)	5567(1625)	6173(1801)	7854(2292)	8526(2488)	
70	9429(2752)	6007(1753)	7172(2093)	9078(2649)	9105(2657)	
75	7971(2326)	4962(1448)	8200(2393)	7577(2211)	7062(2061)	
80	5804(1693)	5826(1700)	5642(1646)	3461(1010)	2856(833)	
85	1663(485)	2633(768)	651(190)	0(0)	0(0)	

DETERMINED IN ACCORDANCE WITH CURRENT IES PUBLISHED PROCEDURES

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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	1.10	1.10	1.10	1.10	1.08	1.08	1.08	1.08	1.03	1.03	1.03	.99	.99	.99	.95	.95	.95	.93			
1	1.02	.99	.95	.92	1.00	.97	.94	.91	.93	.90	.88	.89	.87	.85	.86	.84	.83	.81			
2	.94	.88	.83	.78	.92	.86	.81	.77	.83	.79	.75	.80	.77	.73	.77	.74	.72	.70			
3	.87	.79	.72	.67	.85	.77	.71	.66	.75	.69	.65	.72	.68	.64	.70	.66	.63	.61			
4	.81	.71	.63	.58	.79	.70	.63	.57	.67	.61	.57	.65	.60	.56	.63	.59	.55	.53			
5	.74	.63	.56	.50	.72	.62	.55	.50	.60	.54	.49	.59	.53	.49	.57	.52	.48	.46			
6	.69	.57	.50	.44	.67	.56	.49	.44	.55	.48	.44	.53	.48	.43	.52	.47	.43	.41			
7	.64	.52	.45	.39	.62	.51	.44	.39	.50	.43	.39	.49	.43	.38	.47	.42	.38	.36			
8	.59	.47	.40	.35	.58	.46	.39	.34	.45	.39	.34	.44	.38	.34	.43	.38	.34	.32			
9	.55	.43	.35	.30	.53	.42	.35	.30	.41	.35	.30	.40	.34	.30	.39	.34	.30	.28			
10	.51	.39	.32	.27	.50	.39	.32	.27	.38	.31	.27	.37	.31	.27	.36	.31	.27	.25			

DETERMINED IN ACCORDANCE WITH CURRENT IES PUBLISHED PROCEDURES
 LUMINAIRE INPUT WATTS = 238.0
 LABORATORY RESULT MAY NOT BE REPRESENTATIVE OF FIELD PERFORMANCE.
 BALLAST FACTORS HAVE NOT BEEN APPLIED.