

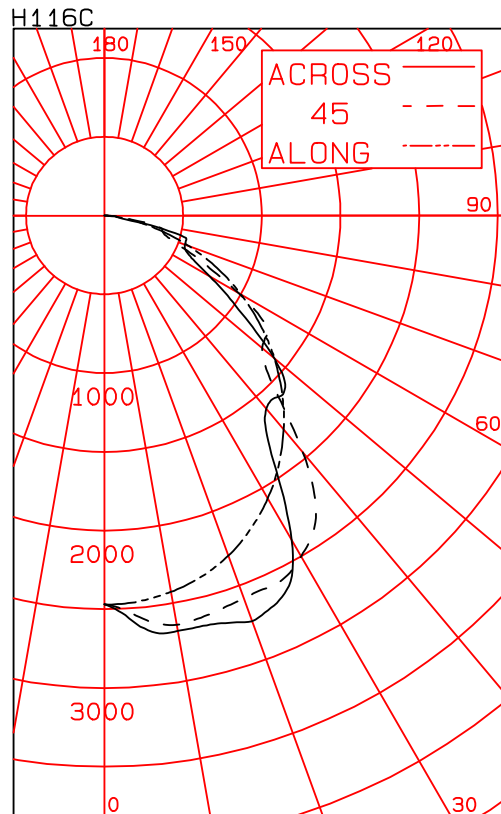
TEST REPORT

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TEST REPORT NO. H116C
 COMPUTED BY LSC PROGRAM **TEST-LITE**

PIONEER ENGINEERING SUSPENDED HI-BAY LUMINAIRE CAT. NO. HBE-248-T5HO
 WITH SPECULAR REFLECTOR
 TWO 54W T5 HO FLUORESCENT LAMPS. LUMEN RATING = 4450 LMS.
 PHILIPS ADVANCE CENTIUM 120-277V 1/2-LAMP ELECTRONIC BALLAST NO. ICN-2S54-90C-N



CANDLEPOWER SUMMARY						OUTPUT LUMENS
ANGLE	ALONG	22.5	45	67.5	ACROSS	
0	2469	2469	2469	2469	2469	
5	2460	2505	2561	2601	2620	249
10	2427	2553	2640	2668	2678	
15	2375	2573	2617	2663	2685	734
20	2299	2510	2586	2705	2740	
25	2197	2412	2581	2658	2671	1155
30	2074	2302	2499	2472	2379	
35	1932	2189	2343	1993	1851	1312
40	1772	2082	1964	1608	1599	
45	1596	1917	1508	1527	1604	1268
50	1408	1710	1308	1457	1409	
55	1210	1387	1266	1101	1041	1078
60	1002	980	981	811	773	
65	789	756	672	588	593	687
70	578	622	451	513	543	
75	370	340	380	499	522	415
80	183	188	276	172	137	
85	48	72	61	72	74	82
90	0	0	0	0	0	

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LAMP	%LUMINAIRE
0-30	2138	24.03	30.63
0-40	3450	38.77	49.42
0-60	5797	65.14	83.03
0-90	6982	78.45	100.00
40-90	3531	39.68	50.58
60-90	1184	13.31	16.97
90-180	0	.00	.00
0-180	6982	78.45	100.00

** EFFICIENCY = 78.5% **

LUMINANCE SUMMARY-CD. / SQ. M.

S/MH = 1.3

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

ANGLE	ALONG	45	ACROSS
45	9979	9461	10064
55	9323	9791	8050
65	8248	7049	6222
75	6311	6499	8951
85	2435	3102	3742

PREPARED BY:

Charles Lison

DATE:

FEB 5, 2014

PREPARED FOR:

PIONEER ENGINEERING
 TORONTO, ONTARIO

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

LUMENTRA, INC.
 160 FROBISHER DRIVE, UNIT 5
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CANDLEPOWER DATA
 IN 2.5 DEGREE STEPS

ANGLE	PLANE						OUTPUT LUMENS
	ALONG	22.5	45	67.5	ACROSS	AVERAGE	
.0	2469	2469	2469	2469	2469	2469	
2.5	2469	2484	2499	2516	2526	2499	
5.0	2460	2505	2561	2601	2620	2552	249
7.5	2446	2531	2614	2666	2676	2593	
10.0	2427	2553	2640	2668	2678	2603	
12.5	2404	2569	2631	2666	2679	2602	
15.0	2375	2573	2617	2663	2685	2596	734
17.5	2341	2552	2600	2673	2711	2588	
20.0	2299	2510	2586	2705	2740	2580	
22.5	2251	2463	2578	2701	2713	2556	
25.0	2197	2412	2581	2658	2671	2521	1155
27.5	2138	2359	2556	2600	2580	2469	
30.0	2074	2302	2499	2472	2379	2375	
32.5	2006	2246	2436	2254	2117	2249	
35.0	1932	2189	2343	1993	1851	2104	1312
37.5	1853	2135	2182	1754	1678	1959	
40.0	1772	2082	1964	1608	1599	1835	
42.5	1686	2009	1721	1540	1581	1726	
45.0	1596	1917	1508	1527	1604	1638	1268
47.5	1503	1816	1376	1537	1554	1564	
50.0	1408	1710	1308	1457	1409	1471	
52.5	1310	1571	1286	1296	1214	1354	
55.0	1210	1387	1266	1101	1041	1220	1078
57.5	1107	1181	1154	948	906	1072	
60.0	1002	980	981	811	773	915	
62.5	896	837	806	685	661	777	
65.0	789	756	672	588	593	677	687
67.5	683	712	546	538	553	604	
70.0	578	622	451	513	543	537	
72.5	472	470	402	507	541	471	
75.0	370	340	380	499	522	416	415
77.5	272	240	367	379	340	323	
80.0	183	188	276	172	137	199	
82.5	109	162	100	80	83	110	
85.0	48	72	61	72	74	66	82
87.5	14	25	32	33	34	28	
90.0	0	0	0	0	0	0	

LUMENTRA, INC.
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AVERAGE LUMINANCE DATA

ANGLE	ALONG	CD. / SQ. M. (FOOTLAMBERTS)				ACROSS
		22.5	45	67.5		
0	10913(3185)	10913(3185)	10913(3185)	10913(3185)	10913(3185)	10913(3185)
30	10585(3089)	11782(3438)	12788(3732)	12645(3690)	12140(3543)	12140(3543)
40	10221(2983)	12042(3514)	11340(3309)	9302(2715)	9228(2693)	9228(2693)
45	9979(2912)	11995(3500)	9461(2761)	9572(2793)	10064(2937)	10064(2937)
50	9684(2826)	11799(3443)	8998(2626)	10045(2931)	9687(2827)	9687(2827)
55	9323(2721)	10706(3124)	9791(2857)	8508(2483)	8050(2349)	8050(2349)
60	8855(2584)	8691(2536)	8683(2534)	7189(2098)	6835(1994)	6835(1994)
65	8248(2407)	7916(2310)	7049(2057)	6165(1799)	6222(1816)	6222(1816)
70	7465(2178)	8069(2355)	5846(1706)	6645(1939)	7019(2048)	7019(2048)
75	6311(1842)	5830(1701)	6499(1896)	8553(2496)	8951(2612)	8951(2612)
80	4646(1356)	4792(1398)	7041(2055)	4385(1279)	3475(1014)	3475(1014)
85	2435(710)	3639(1062)	3102(905)	3665(1069)	3742(1092)	3742(1092)

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	.93	.93	.93	.93	.91	.91	.91	.91	.87	.87	.87	.83	.83	.83	.80	.80	.80	.80	.80	.80	.78
1	.86	.83	.80	.78	.84	.82	.79	.76	.78	.76	.74	.75	.73	.72	.72	.71	.69	.69	.69	.69	.68
2	.79	.74	.69	.65	.78	.72	.68	.64	.69	.66	.63	.67	.64	.61	.65	.62	.60	.60	.60	.60	.58
3	.73	.66	.60	.55	.71	.64	.59	.55	.62	.58	.54	.60	.56	.53	.58	.55	.52	.52	.52	.52	.51
4	.67	.59	.52	.48	.66	.58	.52	.47	.56	.51	.47	.54	.50	.46	.52	.49	.45	.45	.45	.45	.44
5	.62	.52	.46	.41	.60	.51	.45	.41	.50	.44	.40	.48	.43	.40	.47	.43	.39	.39	.39	.39	.38
6	.57	.47	.40	.36	.55	.46	.40	.35	.45	.39	.35	.44	.39	.35	.42	.38	.34	.34	.34	.34	.33
7	.53	.42	.36	.31	.51	.42	.36	.31	.41	.35	.31	.39	.34	.30	.38	.34	.30	.30	.30	.30	.29
8	.49	.38	.32	.27	.47	.37	.31	.27	.36	.31	.27	.36	.30	.27	.35	.30	.26	.26	.26	.26	.25
9	.45	.34	.28	.23	.44	.34	.28	.23	.33	.27	.23	.32	.27	.23	.31	.26	.23	.23	.23	.23	.22
10	.41	.31	.25	.21	.41	.31	.25	.21	.30	.24	.21	.29	.24	.20	.29	.24	.20	.20	.20	.20	.19

DETERMINED IN ACCORDANCE WITH CURRENT IES PUBLISHED PROCEDURES
 LUMINAIRE INPUT WATTS = 107.8
 LABORATORY RESULT MAY NOT BE REPRESENTATIVE OF FIELD PERFORMANCE.
 BALLAST FACTORS HAVE NOT BEEN APPLIED.

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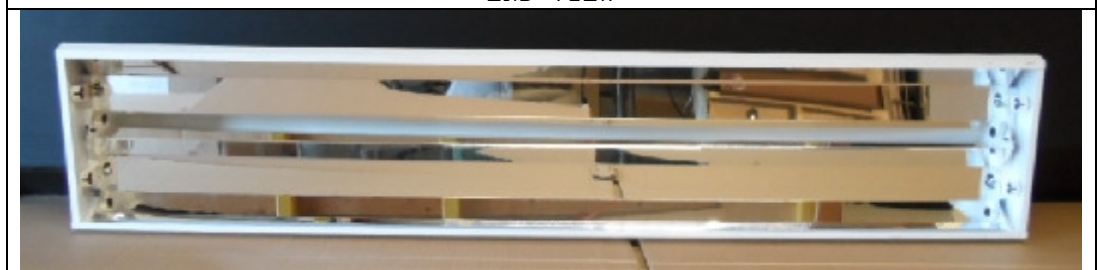
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AMBIENT TEMPERATURE: 25.7 °C

THE LUMINAIRE WAS OPERATED IN THE ORIENTATION INDICATED BY THE PICTURES BELOW
LSI MOVING MIRROR GONIOPHOTOMETER 6240T WAS USED



END VIEW



VIEWED FROM BELOW