

REPORT NUMBER: ITL73920

PAGE: 1 OF 5

ISSUE DATE: 08/15/12

PREPARED FOR: ECONOLIGHT, A DIVISION OF RUUD LIGHTING

CATALOG NUMBER: E-HL4F11CSZ

LUMINAIRE: CAST BLACK PAINTED FINNED METAL HOUSING, FOUR CIRCUIT BOARDS EACH WITH ONE 120 LED ARRAY, TWO-PIECE MOLDED PLASTIC REFLECTOR WITH SPECULAR FINISH AND ONE CONICAL APERTURE PER LED ARRAY AND TEXTURED BOTTOM MOUNTING SURFACE, CLEAR FLAT GLASS LENS WITH BLACK PAINTED INTERIOR AND ONE APERTURE PER LED IN CAST BLACK PAINTED METAL LENS FRAME.

LAMPS: FOUR HUNDRED EIGHTY WHITE LIGHT EMITTING DIODES (LEDS), VERTICAL BASE-UP POSITION.

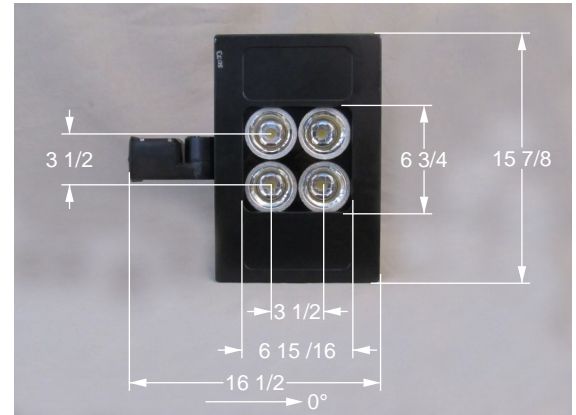
TOTAL INPUT WATTS = 151.8 AT 120.0 VOLTS

LED DRIVERS: FOUR LUMA LE028X01

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120VAC, 60Hz) TO THE LED DRIVERS.

TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 25.25 FEET



CANDELA DISTRIBUTION

FLUX

	0.0	22.5	45.0	67.5	90.0	
0	12369	12369	12369	12369	12369	1094
5	11880	11880	11848	11798	11780	2800
15	9979	10091	9964	10274	10251	2261
25	4500	4620	4566	4471	4396	1394
35	2451	2449	2432	2434	2373	248
45	134	135	154	133	101	19
55	15	19	27	16	16	9
65	7	10	8	9	8	6
75	2	5	3	5	4	1
85	0	1	1	2	2	
90	0	0	0	0	0	

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%FIXT
0- 30	6156	78.6
0- 40	7549	96.4
0- 60	7816	99.8
0- 90	7832	100.0
90-180	0	0.0
0-180	7832	100.0

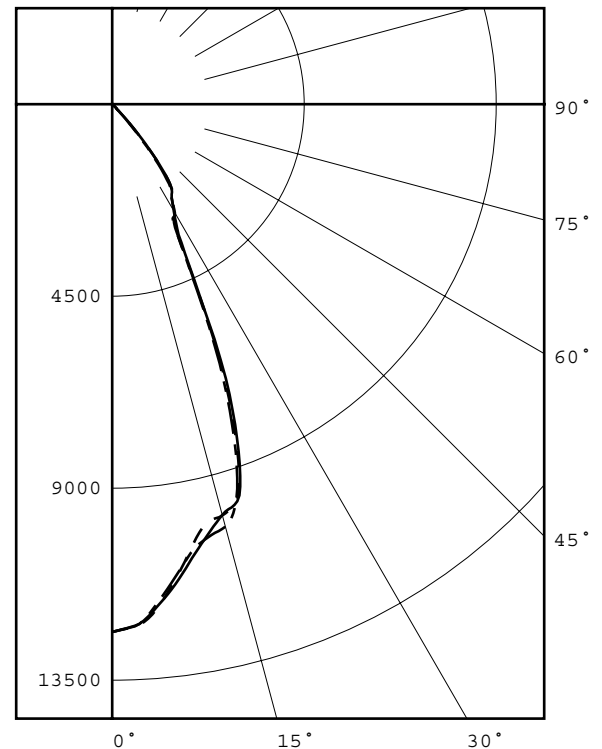
EFFICACY = 51.6 lm/W

CIE TYPE - DIRECT

PLANE : 0-DEG 90-DEG
SPACING CRITERIA : 0.78 0.77
LUMINOUS LENGTH : 6.938 6.750

LUMINANCE DATA IN CANDELA/SQ M

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
45	6273.	7209.	4728.
55	866.	1558.	923.
65	548.	627.	627.
75	256.	384.	512.
85	0.	380.	760.



LEGEND:
0-deg - - - - -
45-deg - - - - -
90-deg - - - - -

Checked B. HYRE
Approved R. BEATTIE
Lighting Engineer



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: ITL73920

PAGE: 2 OF 5

ISSUE DATE: 08/15/12

PREPARED FOR: ECONOLIGHT, A DIVISION OF RUUD LIGHTING
 CANDELA DISTRIBUTION
 LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0
0.0	12369	12369	12369	12369	12369
2.5	12253	12230	12238	12256	12247
5.0	11880	11880	11848	11798	11780
7.5	11257	11356	11347	11266	11203
10.0	10593	10741	10797	10751	10667
12.5	10079	10313	10336	10574	10394
15.0	9979	10091	9964	10274	10251
17.5	9720	9774	9758	9740	9684
20.0	8552	8676	8661	8547	8363
22.5	6777	6853	6952	6735	6577
25.0	4500	4620	4566	4471	4396
27.5	3082	3149	3301	3225	3136
30.0	2941	2945	2892	2918	2886
32.5	2584	2602	2596	2596	2583
35.0	2451	2449	2432	2434	2373
37.5	1946	1954	1954	1930	1775
40.0	1197	1199	1221	1196	997
42.5	529	535	542	533	358
45.0	134	135	154	133	101
47.5	55	92	107	81	44
50.0	26	36	52	32	26
52.5	22	27	39	25	21
55.0	15	19	27	16	16
57.5	12	14	15	14	13
60.0	10	12	11	13	11
62.5	9	11	10	11	9
65.0	7	10	8	9	8
67.5	6	8	6	8	8
70.0	5	7	7	9	7
72.5	7	10	10	10	8
75.0	2	5	3	5	4
77.5	2	4	3	5	3
80.0	1	3	2	4	3
82.5	0	2	1	2	2
85.0	0	1	1	2	2
87.5	0	0	0	1	1
90.0	0	0	0	0	0



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: ITL73920

PAGE: 3 OF 5

ISSUE DATE: 08/15/12

PREPARED FOR: ECONOLIGHT, A DIVISION OF RUUD LIGHTING

5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	289
5- 10	805
10- 15	1231
15- 20	1569
20- 25	1390
25- 30	871
30- 35	775
35- 40	619
40- 45	214
45- 50	34
50- 55	12
55- 60	7
60- 65	5
65- 70	4
70- 75	4
75- 80	2
80- 85	1
85- 90	0

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	1094
0- 20	3894
0- 30	6156
0- 40	7549
0- 50	7798
0- 60	7816
0- 70	7825
0- 80	7831
0- 90	7832



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: ITL73920

PAGE: 4 OF 5

ISSUE DATE: 08/15/12

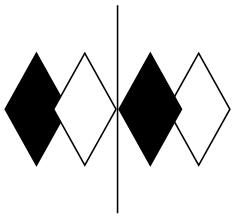
PREPARED FOR: ECONOLIGHT, A DIVISION OF RUUD LIGHTING

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	114	111	109	107	112	109	107	105	105	104	102	101	100	99	98	97	96	94
2	109	104	101	97	107	103	99	96	99	97	94	97	94	92	94	92	90	89
3	104	98	93	90	102	97	92	89	94	91	88	92	89	86	90	87	85	84
4	99	92	87	83	98	91	87	83	89	85	82	87	84	81	85	82	80	79
5	95	87	82	78	93	86	81	77	84	80	77	83	79	76	81	78	76	74
6	91	82	77	73	89	82	76	73	80	76	72	79	75	72	78	74	71	70
7	87	78	73	69	85	77	72	69	76	72	68	75	71	68	74	70	67	66
8	83	74	69	65	82	74	68	65	73	68	64	72	67	64	71	67	64	63
9	79	70	65	61	78	70	65	61	69	64	61	68	64	61	67	64	61	59
10	76	67	62	58	75	67	62	58	66	61	58	65	61	58	65	61	58	57

ALL CANDELA, LUMENS, LUMINANCE, AND VCP VALUES IN THIS REPORT ARE BASED ON ABSOLUTE PHOTOMETRY. THE COEFFICIENT OF UTILIZATION VALUES ARE BASED ON THE TOTAL ABSOLUTE LUMEN OUTPUT OF THIS TEST SAMPLE.



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: ITL73920

PAGE: 5 OF 5

ISSUE DATE: 08/15/12

PREPARED FOR: ECONOLIGHT, A DIVISION OF RUUD LIGHTING

ADDRESS: 9201 WASHINGTON AVE
RACINE, WI 53406

THIS ITL REPORT WITH THE USE OF THE NVLAP LOGO SHALL NOT BE USED BY THE CLIENT TO CLAIM PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NVLAP, NIST, OR ANY AGENCY OF THE FEDERAL GOVERNMENT.