



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: ITL59870

DATE: 02/08/08

PREPARED FOR: GVA LIGHTING, INC.

CATALOG NUMBER: DUC4-NM/CH-4-1W-3500K-MB

LUMINAIRE: CAST FINNED METAL BODY, ONE WHITE CIRCUIT BOARD WITH FOUR LEDS, MOLDED PLASTIC LENS WITH MICRO-PRISMATIC BOTTOM AND ONE CONICAL LENS ELEMENT BELOW EACH LED. EACH CONICAL LENS HAS A CONCAVE BOTTOM AND TOP RECESSED CENTER. CAST SPECULAR LENS RETAINING RING, CAST METALLIC TRIM.

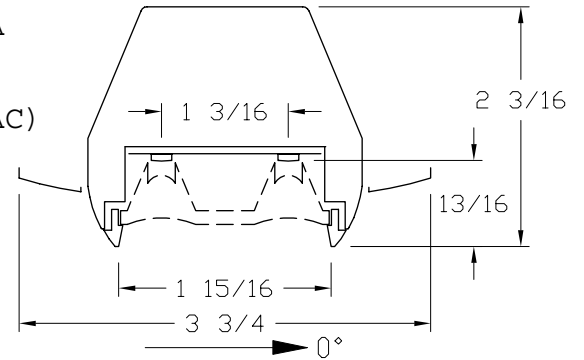
LAMPS: FOUR 1-WATT WHITE LIGHT EMITTING DIODES (LEDS), VERTICAL BASE-UP POSITION.

TOTAL INPUT WATTS= 6.3 AT 120.0 VOLTS

MOUNTING: RECESSED

LED DRIVER: GVA LIGHTING LP1025-24 24V 1.04A
25W DC POWER SUPPLY

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120VAC) TO THE POWER SUPPLY. LAMP INFORMATION PROVIDED BY CLIENT.



CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	FLUX
0	1077	1077	1077	1077	1077	76
5	946	934	913	906	905	83
15	322	309	293	285	282	32
25	70	67	64	63	63	10
35	17	16	16	16	16	4
45	6	6	6	6	6	2
55	3	3	3	3	3	1
65	2	2	2	2	2	0
75	1	0	0	0	1	0
85	0	0	0	0	0	0
90	0	0	0	0	0	0

ZONAL LUMEN SUMMARY

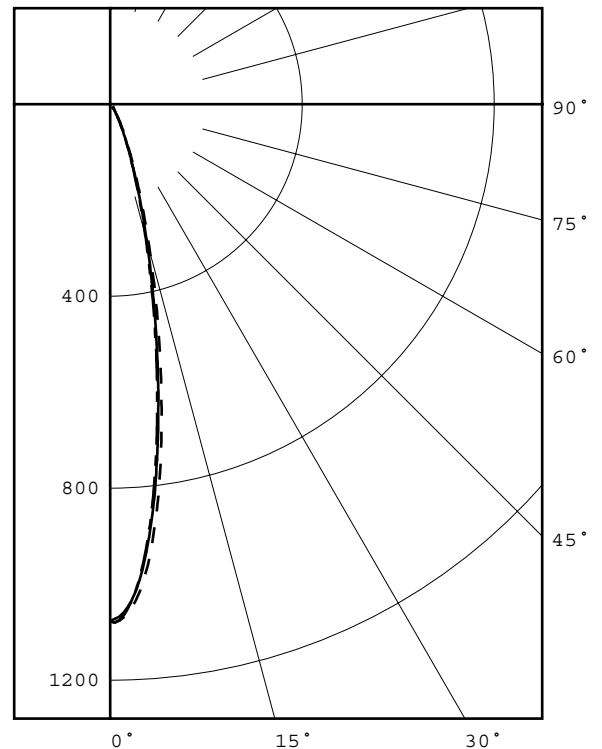
ZONE	LUMENS	%FIXT
0- 30	192	90.4
0- 40	203	95.4
0- 60	210	99.0
0- 90	212	100.0
90-180	0	0.0
0-180	212	100.0

CIE TYPE - DIRECT

PLANE : 0-DEG 90-DEG
SPACING CRITERIA : 0.4 0.3
LUMINOUS DIAMETER: 1.937

LUMINANCE DATA IN CANDELA/SQ M

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
45	4461.	4461.	4461.
55	2750.	2750.	2750.
65	2488.	2488.	2488.
75	2031.	0.	2031.
85	0.	0.	0.



LEGEND:
0-deg: - - - - -
45-deg: _____
90-deg: - . - . - .

Checked B.HYRE
Approved R.BEATTIE



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: ITL59870

DATE: 02/08/08

PREPARED FOR: GVA LIGHTING, INC.

CANDELA DISTRIBUTION
 LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0
0.0	1077	1077	1077	1077	1077
0.5	1080	1077	1072	1077	1080
1.0	1076	1073	1068	1072	1075
1.5	1070	1066	1060	1063	1066
2.0	1060	1056	1048	1050	1052
2.5	1049	1043	1034	1034	1035
3.0	1034	1027	1016	1013	1014
3.5	1016	1008	995	991	992
4.0	994	986	970	965	965
4.5	972	962	943	936	936
5.0	946	934	913	906	905
5.5	917	905	883	874	874
6.0	885	874	850	840	840
6.5	855	842	818	807	804
7.0	823	808	782	772	770
7.5	789	773	748	736	734
8.0	754	738	712	701	697
8.5	719	702	677	665	662
9.0	684	666	641	630	626
9.5	649	631	608	595	593
10.0	614	596	572	561	558
10.5	581	563	540	528	526
11.0	548	530	507	495	493
11.5	515	498	477	465	462
12.0	485	467	446	434	433
12.5	455	438	418	407	404
13.0	426	410	390	379	377
13.5	398	383	364	353	351
14.0	370	357	339	329	326
14.5	346	333	316	306	303
15.0	322	309	293	285	282
15.5	300	287	273	264	262
16.0	278	267	253	245	243
16.5	258	247	234	228	226
17.0	239	229	217	211	210
17.5	222	213	201	196	195
18.0	205	197	186	182	180
18.5	190	182	173	169	167
19.0	176	169	160	156	155
19.5	163	156	148	145	144
20.0	151	145	137	134	134
22.5	103	98	94	92	92
25.0	70	67	64	63	63
27.5	48	46	44	43	43
30.0	33	32	31	30	30
32.5	23	23	22	21	22
35.0	17	16	16	16	16
37.5	13	12	12	12	12
40.0	10	9	9	9	10
42.5	8	7	7	7	8
45.0	6	6	6	6	6
47.5	6	5	5	5	6
50.0	5	4	4	4	5
52.5	4	4	3	3	4
55.0	3	3	3	3	3
57.5	3	3	2	3	3
60.0	3	2	2	2	2
62.5	2	2	2	2	2
65.0	2	2	2	2	2
67.5	1	1	1	1	1
70.0	1	1	1	1	1
72.5	1	1	1	1	1
75.0	1	0	0	0	1
77.5	0	0	0	0	0
80.0	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: ITL59870

DATE: 02/08/08

PREPARED FOR: GVA LIGHTING, INC.

CANDELA DISTRIBUTION
LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0
82.5	0	0	0	0	0
85.0	0	0	0	0	0
87.5	0	0	0	0	0
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: ITL59870

DATE: 02/08/08

PREPARED FOR: GVA LIGHTING, INC.

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	120	120	120	120	117	117	117	117	112	112	112	107	107	107	103	103	103	100
1	115	113	111	109	113	111	109	108	107	106	104	103	102	101	100	99	98	97
2	111	107	104	102	109	106	103	100	103	100	98	100	98	96	97	96	94	93
3	107	102	99	96	106	101	98	95	99	96	93	96	94	92	94	92	90	89
4	104	98	94	91	102	97	93	90	95	92	89	93	90	88	91	89	87	86
5	100	94	90	87	99	93	89	86	92	88	85	90	87	85	89	86	84	83
6	97	91	86	83	96	90	86	83	89	85	82	87	84	82	86	83	81	80
7	94	88	83	80	93	87	83	80	86	82	80	85	82	79	84	81	79	78
8	92	85	80	77	91	84	80	77	83	80	77	82	79	77	82	79	76	75
9	89	82	78	75	88	82	78	75	81	77	75	80	77	74	79	76	74	73
10	87	80	76	73	86	79	75	73	79	75	73	78	75	72	78	74	72	71

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 LUMINAIRE SAMPLE.