

MUSIC CITY CONVENTION CENTER

LIGHTING FIXTURE SUBMITTAL

LIGHTING FIXTURE DATA SHEET

FIXTURE TYPE: 91

FIXTURE INFORMATION

FIXTURE MANUFACTURER: ZUMTOBEL

FIXTURE CATALOG NUMBER: FTW-2545-4-U-SM

CONTRACTOR'S COMMENTS:

ARCHITECT'S COMMENTS:

ENGINEER'S COMMENTS: APPROVED AS NOTED!

ITEMS REQUIRED IF SHOWN WITH FIXTURE THAT ARE NEEDED PRIOR TO BEING ABLE TO RELEASE FIXTURE TO BE MANUFACTURED.

1. CUSTOM COLOR IF REQUIRED
2. STEM OR AIRCRAFT CABLE LENGTH IF REQUIRED
3. ROW LENGTHS OR LAYOUT INFORMATION
4. CEILING TYPE

NOT SUPPLYING INFORMATION PRIOR TO RELEASE WILL STOP FIXTURES FROM BEING RELEASED AND COULD DELAY PROJECT.

CONTRACTOR IS RESPONSIBLE FOR VERIFYING HEIGHTS WITH ARCHITECTURAL FINISHED CEILINGS & ALL SURFACE MTD AREAS PRIOR TO ORDER OF ALL STEM & CABLE LENGTHS

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FIXTURE TYPE: 91Q

FIXTURE INFORMATION

FIXTURE MANUFACTURER: ZUMTOBEL

FIXTURE CATALOG NUMBER: FTW-2545-4-U-SM

CONTRACTOR'S COMMENTS:

ARCHITECT'S COMMENTS:

ENGINEER'S COMMENTS:

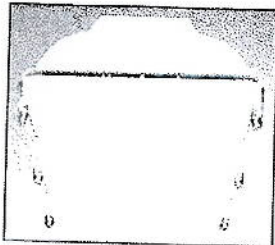
ITEMS REQUIRED IF SHOWN WITH FIXTURE THAT ARE NEEDED PRIOR TO BEING ABLE TO RELEASE FIXTURE TO BE MANUFACTURED.

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CHIARO

Fluorescent Two Lamp, T5, T5 HO or T8



Applications: This durable, moisture-proof luminaire is ideal for locations where humidity and dust is constant challenge. The internal prismatic structure allows easy cleaning of the fixture while providing excellent glare control and high efficiency (79% for 32W T8). CHIARO is a good choice for bakeries, animal feed facilities, pump rooms, agricultural and industrial facilities and parking garages.

Surface-Mounted or Suspended Wet Location (IP 65) Diffuser Luminaire

4'

Online
Find it Fast 282

Type: 91, 91Q

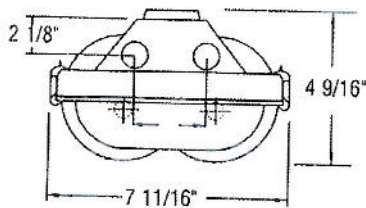
Project: _____

ORDERING NOTE: Specify lamping, mounting and options.

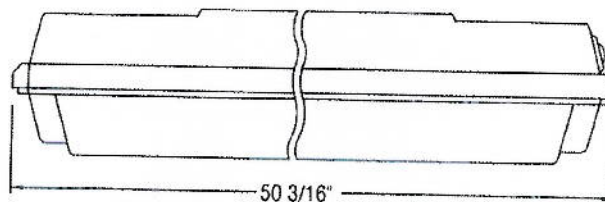
▼ Fixture	▼ Lamping	▼ Length	▼ Voltage	▼ Mounting	▼ Options
FTW	2545	4	U	SM	
FTW CHIARO FT. Wide	2285 (2) 28W T5 2328 (2) 32W T8 2545 (2) 54W T5 HO	4 4'	U Universal 120/277V	SM Surface Mounting Kit SK 20" Suspension Kit, includes feed cord	1 Stand-By Battery Pack (consult factory) TF Transparent diffuser fasteners AV Tamper-proof fastener kit CSO Cool Spot Optimizer* (T5 / T5 HO only)

* German registered utility patent DE 20302607 (1) Pending European patent application EP 1482534 A2. Pending Norwegian patent application NO 2004 2016

Cross Section



Side View



Suitable for wet locations
Approved for thru-wiring

IBEW Union Made

1. Housing - Transparent, high-impact resistant polycarbonate (halogen-free and self-extinguishing). Polyurethane 2-component foam gasket, wet location rating (IP 65 protection in accordance with EN 60598) is accomplished with unique sealing process.

2. Sockets - Lamp configurations allow for twist lock installation.

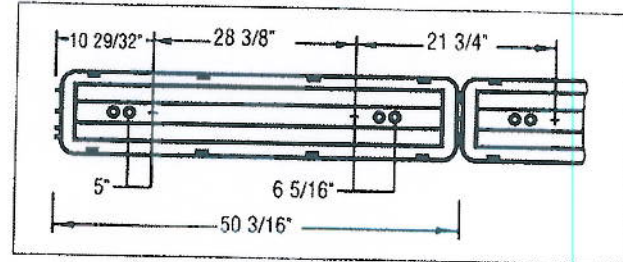
3. Lamping - (2) T5, T5 HO or T8 fluorescent lamps, supplied by others. Remove diffuser for access to lamps.

4. Reflector - Perforated white reflector allows 20% indirect component.

5. Ballast - Universal voltage electronic 120/277V ballast. Ambient temperature will influence performance of fluorescent lamp output. Consult factory for applications with ambient temperatures < 15°F or > 95°F. Consult factory for 347V.

6. Diffuser - One piece, injection-molded impact-resistant polycarbonate, with computer-optimized, internal prismatic structure. Smooth surface for easy cleaning. VA2 stainless steel diffuser fasteners included; transparent fasteners may be ordered separately.

7. Mounting - Surface-mount with two supplied V2A stainless steel mounting brackets. May be suspended with 20" SK Suspension Kit, ordered separately.



8. Junction Box - 4" octagonal junction box supplied by others. Fixtures can be through-wired.

9. Stand-by Battery Pack - Consult factory for availability.

10. Cool Spot Optimizer - Aluminum sleeve with an injection molded insert that sits into the T5 / T5 HO lamp base (one per lamp on the label side). Keeps the cold spot of the lamp insulated and close to its optimal operating temperature in cold weather.

11. Weight - 4.4 lbs. (4' fixture).

In a continuing effort to offer the best product possible we reserve the right to change, without notice, specifications or materials that in our opinion will not alter the function of the product. Technical specification sheets that appear on www.zumtobel.us are the most recent version and supersede all other versions that exist in any other printed or electronic form.

Zumtobel Lighting Inc. ©2008
3300 Route 9W • Highland, NY 12528-2630
www.zumtobel.us
TEL (845) 691-6262 • (800) 932-0633 • FAX (845) 691-6289
10/15/08

CHR-2

ZUMTOBEL

Photometric Data

FTW 2328 (2) 32W T8

CHIARO FT, WIDE

PRORATED FROM LTL 08206

Total Luminaire Efficiency 79%

20% Uplight 80% Downlight

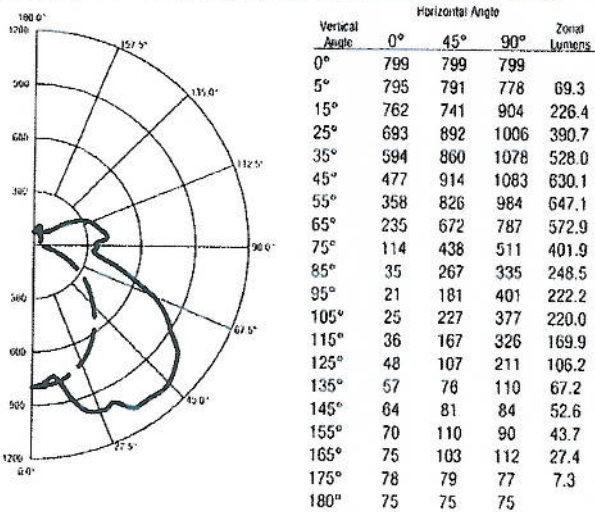
Spacing Criteria

Lateral Plane 0° 90°
1.2 1.9

TOTAL LAMP LUMENS = 5900

INPUT WATTS = 60

Candela Distribution



Luminance Data in Candela / Sq. Meter

Angle in Vertical°	Average 0°	Average 45°	Average 90°
45°	2640	3768	4160
55°	2366	3704	4044
65°	2003	3417	3588
75°	1428	2665	2714
85°	885	2104	2209

Coefficients of Utilization

Effective Floor Cavity Reflectance = 20%												
pcc	0.8				0.7				0.5			
h/w	0.7	0.5	0.3	0.1	0.7	0.5	0.3	0.1	0.5	0.3	0.1	0.5
0	90	90	90	90	86	86	86	86	79	79	79	72
1	90	76	72	68	76	72	69	66	66	63	61	60
2	72	65	59	54	68	62	56	52	56	52	48	52
3	65	56	49	43	62	53	47	42	49	44	39	45
4	59	49	41	36	56	47	40	35	43	37	33	39
5	54	43	36	30	51	41	34	29	38	32	27	35
6	49	38	31	26	47	37	30	25	34	28	24	31
7	46	34	27	22	43	33	26	22	30	25	20	28
8	42	31	24	20	40	30	23	19	28	22	18	25
9	39	28	22	17	37	27	21	17	25	20	16	23

FTW 2545 (2) 54W T5 HO

CHIARO FT, WIDE

LTL 08223

Total Luminaire Efficiency 73%

20% Uplight 80% Downlight

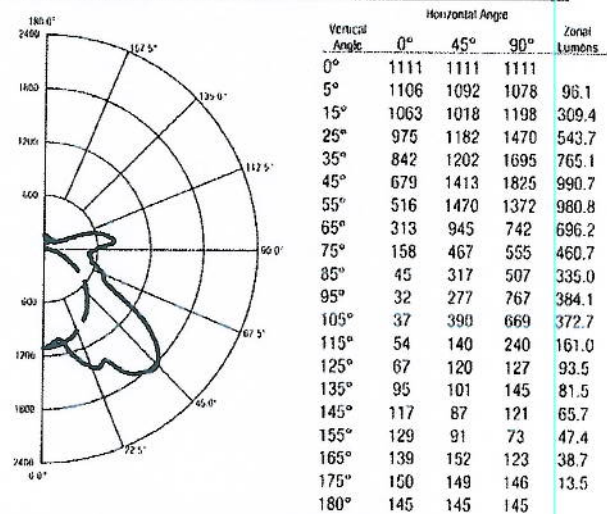
Spacing Criteria

Lateral Plane 0° 90°
1.2 2.1

TOTAL LAMP LUMENS = 8800

INPUT WATTS = 120

Candela Distribution



Luminance Data in Candela / Sq. Meter

Angle in Vertical°	Average 0°	Average 45°	Average 90°
45°	3757	5825	7013
55°	3410	6592	5636
65°	2668	4806	3384
75°	1981	2843	2946
85°	1131	2497	3340

Coefficients of Utilization

Effective Floor Cavity Reflectance = 20%												
pcc	0.8				0.7				0.5			
h/w	0.7	0.5	0.3	0.1	0.7	0.5	0.3	0.1	0.5	0.3	0.1	0.5
0	84	84	84	84	80	80	80	80	73	73	73	67
1	75	71	67	64	71	68	65	62	62	60	57	57
2	67	61	55	51	64	58	53	49	53	49	46	49
3	61	53	46	41	58	51	45	40	46	41	38	42
4	55	46	39	34	53	44	38	33	41	35	31	37
5	51	41	34	29	48	39	33	28	36	31	26	33
6	46	36	30	25	44	35	29	24	32	27	23	29
7	43	33	26	21	41	31	25	21	29	23	20	27
8	40	29	23	19	38	28	22	18	26	21	17	24
9	37	27	21	16	35	26	20	16	24	19	15	22

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CHR-2A

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