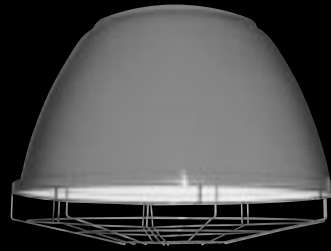




CLEAR ACRYLIC



ALUMINUM REFLECTOR

ZERO POWER WAREHOUSE ILLUMINATION

FLUORESCENT WAREHOUSE LIGHTING

Enviroguard™ Family

GUTH®

LIGHTING FOR DEMANDING ENVIRONMENTS

WAREHOUSE LIGHTING

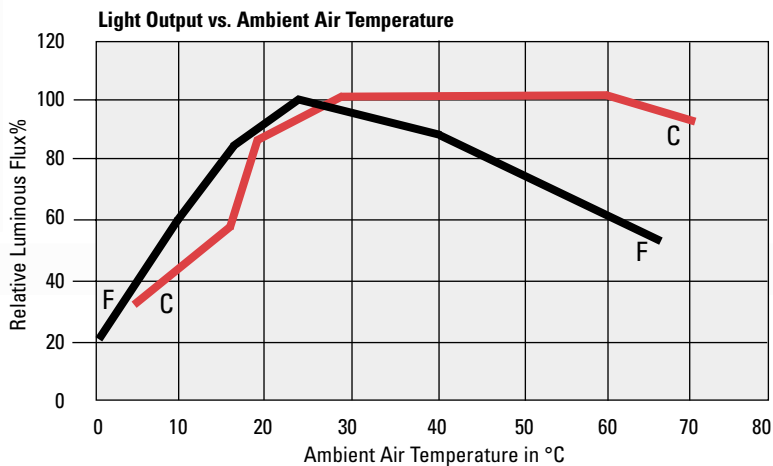
OVERVIEW

Warehouses are generally divided into active, semi-active and low-activity pick zones. Guth's 4 lamp fluorescent lowbay fixtures can be completely or partially turned off when not needed. Energy can be 50% less than any existing system. Reduced operation will extend component life up to seven years. Guth's 4-UP Program allows a free 90 day trial installation.

LAMPS

The fixtures use amalgam technology compact fluorescent lamps that provide:

1. 95% to 100% of rated lumens over a wide temperature range
2. High lumen maintenance
3. Accurate color at 3000, 3500, 4500 and 5000 degrees Kelvin
4. Up to 18,000 rated life



Fluorescent lamps (T-12, T-8, T-5, Biax) are affected by temperature as in "F" curve above. T-5 lamp curve shifts right 10 degrees. Compact lamps follow curve "C".

Footnote: Product information sheet for OEMS, General Electric Company 2001.

BALLASTS

Microprocessor controlled electronic circuits maximize lamp performance.

They provide:

1. Ballast factor of 1
2. Soft start ignition
3. End of life sensing
4. Universal 120/277 voltage
5. Low 10% Harmonic distortion
6. 0°F starting

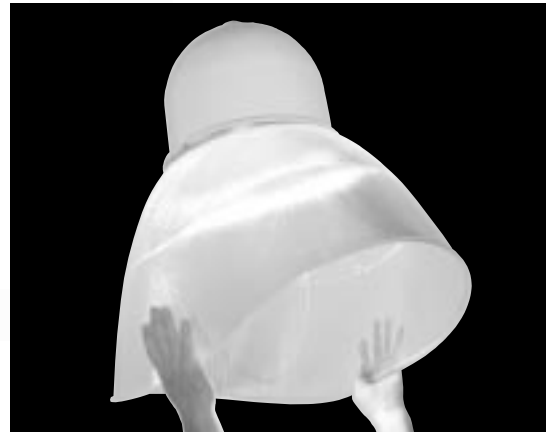
EMERGENCY LIGHTING CAPABILITY

Fluorescent lamps provide instant on for safe ingress and re-strike immediately after a momentary power outage. Lamps can easily be operated from generators, inverters or optional plug-n-play battery systems.

LISTINGS

All fixtures are available damp or wet location listed for use in 40°C (104°F) ambient temperatures.

Note: Room temperature rises at approximately 1°F per foot. A normal room with a 72°F ambient at 6 feet will be over 95°F at 30 feet.



Hi-Impact Clear Acrylic



Soft-Glo™ Acrylic

GUTH LIGHTING SYSTEM

FIXTURE CONSTRUCTION

Fixture is manufactured of corrosion resistant aluminum with thermal protection and high temperature components. The design is ledge free to minimize dirt accumulation. Internal components use plug-in connectors.



OPTICS

Fixtures typically would use 4-70 watt lamps each. Reflectors are available in acrylic or aluminum. Acrylic reflectors may be clear, clear impact resistant or low glare Soft-Glo.™ They are suited for 15 to 25 foot mounting. Spacing may be up to 2.5 times the mounting height. Aluminum reflectors are suited for mountings at 25' and above. Spacing may be up to 1.5 times the mounting height.

TYPICAL PERFORMANCE

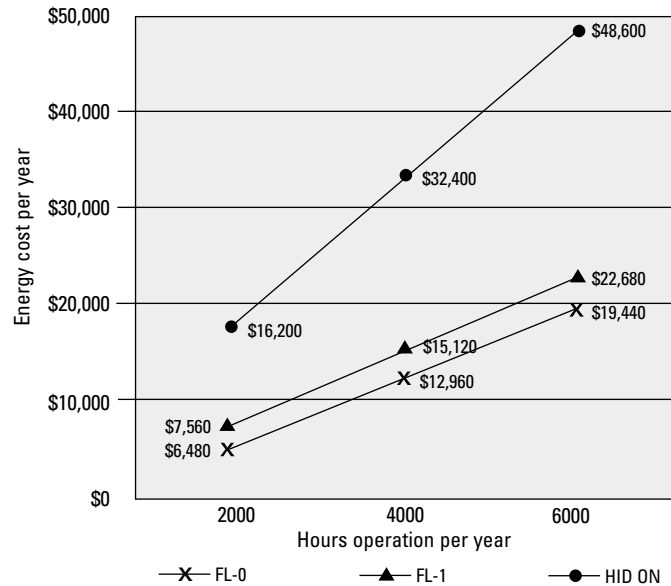
Fixture Reflector Type	Fixture Height	Stack Height	Aisle Width	Spacing	Vertical Average	Minimum Vertical at 20'	Horizontal Average
Acrylic	24'	20'	6'	50'	21 fc	3.6 fc	14 fc
Aluminum	30'	28'	6'	45'	20 fc	4.0 fc	16 fc

ENERGY SAVINGS

Chart below compares 3 systems with 300 fixtures each. Energy cost is .06 per kwh. Operation is as follows:

1. HID: Fixtures always on (450 watts)
 - A. 100 fixtures always on (300 watts)
 - B. 100 fixtures on low power 50% (187.5 avg. watts)
 - C. 100 fixtures on low power 70% (142.5 avg. watts)
3. FL-0: At low power no lamps operate
 - A. 100 fixtures always on (300 watts)
 - B. 100 fixtures with lamps off 50% (150 avg. watts)
 - C. 100 fixtures with lamps off 70% (90 avg. watts)

Systems Comparison

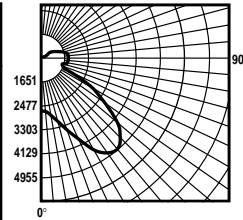


WAREHOUSE LIGHTING SYSTEM

PHOTOMETRICS

Coefficients of Utilization 4-70 Watt 22" Open Acrylic Reflector ELP-02-41-470Q-1

Ceiling Refl.	80%			50%			10%		
Wall Refl.	50	30	10	50	30	10	50	30	10
RCR	20% Effective Floor Cavity Reflectance								
0	.98	.98	.98	.86	.86	.86	.72	.72	.72
1	.85	.81	.77	.74	.71	.69	.62	.60	.59
2	.74	.68	.63	.65	.61	.57	.55	.52	.50
3	.65	.59	.53	.58	.53	.49	.49	.46	.43
4	.58	.51	.45	.51	.46	.47	.44	.40	.37
5	.51	.44	.38	.46	.40	.35	.39	.35	.31
6	.46	.38	.33	.41	.35	.30	.35	.30	.27
7	.41	.33	.28	.36	.30	.26	.31	.26	.23
8	.36	.29	.24	.32	.26	.22	.27	.23	.20
9	.32	.25	.20	.28	.23	.18	.24	.20	.16
10	.29	.22	.17	.26	.20	.16	.22	.17	.14

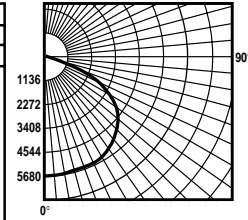


Report No.
P11542.0

S/MH Ratio 2.3
Total Lamp Lumens 20,800
Fixture Efficiency 86.1%

Coefficients of Utilization 4-70 Watt 25" Open White Aluminum Reflector SIO5-1NN-470Q

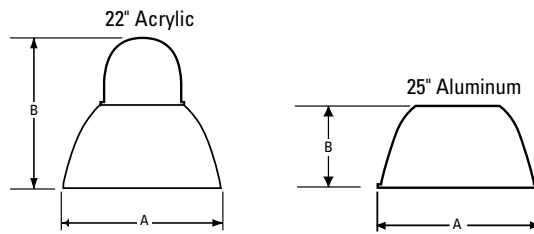
Ceiling Refl.	80%			50%			10%		
Wall Refl.	50	30	10	50	30	10	50	30	10
RCR	20% Effective Floor Cavity Reflectance								
0	1.05	1.05	1.05	.98	.98	.98	.90	.90	.90
1	.93	.90	.87	.87	.85	.83	.81	.79	.78
2	.82	.77	.72	.78	.73	.70	.72	.69	.67
3	.73	.66	.61	.69	.64	.59	.64	.61	.57
4	.64	.57	.51	.61	.55	.50	.57	.53	.49
5	.56	.49	.43	.54	.47	.42	.50	.45	.41
6	.50	.42	.37	.48	.41	.36	.45	.40	.36
7	.45	.37	.32	.43	.36	.31	.40	.35	.31
8	.40	.32	.27	.38	.31	.27	.36	.30	.26
9	.35	.28	.23	.34	.27	.23	.32	.27	.23
10	.32	.25	.20	.31	.24	.20	.29	.24	.20



Report No.
P11541.1

S/MH Ratio 1.4
Total Lamp Lumens 20,800
Fixture Efficiency 87.9%

DIMENSIONS



REFL. DIA	DIM. A	DIM. B
22"	22 1/4"	22"
25"	25 3/8"	14 1/2"

OPTIONS

Electrical

"/SSF" – Slow Blow Fuse – Fluorescent and HID
"/XCKT" – Multi Circuit Wiring – consult factory

Mountings

"/LHCP-120" – Loop Hanger, 6' White Cord and NEMA 5-15 Molded Plug
"/LHCP-277" – Loop Hanger, 6' White Cord and NEMA L11-15 Twist Lock Plug

Safety

"/BEF9" – 750 Lumen Remote Plug-n-Play Battery Pack
"/BEF5" – 1100 Lumen Remote Plug-n-Play Battery Pack
"/BEF3" – 3200 Lumen Remote Plug-n-Play Battery Pack
Note: consult factory for internal and wet location applications
"/BRC" – Safety Chain and Hangar
"/AWG" – Wire Guard

ORDERING INFORMATION

Open 22" Prismatic Acrylic

ELP-02 3 1 470Q D

SERIES
ELP-02 – Prismatic Acrylic

REFLECTOR
3 – Soft Glo™ Acrylic
4 – Clear Acrylic
6 – Hi-Impact Acrylic

BALLAST COVER TYPE
1 – White Aluminum
2 – Anodized Aluminum

VOLTAGE
D – 120/277

LAMP AND WATTAGE
470Q – 4LT 70 W Quad Tube
370Q – 3LT 70 W Quad Tube

Open 25" Aluminum Reflector

SI-05 1 N N 470Q D

SERIES
SI-05 – Super Illuminator

REFLECTOR
1 – White
2 – Anodized

LENS
N – None

VOLTAGE
D – 120/277

LAMP & WATTAGE
470Q – 4LT 70W Quad Tube
370Q – 3LT 70W Quad Tube

BALLAST COVER TYPE
N – None ("O" Enclosure)



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