

LUMINAIRE REQUIREMENTS:

1. HOUSING – DIE-CAST ALUMINUM OR HIGH-IMPACT, UV-STABILIZED, INJECTION-MOLDED THERMOPLASTIC. SINGLE OR DOUBLE-FACED AS INDICATED.
2. FINISH (ON CAST ALUMINUM HOUSING ONLY) – TEXTURED POWDER COAT FINISH. OPTIONS INCLUDE WHITE, WHITE WITH BRUSHED ALUMINUM FACE, BLACK, OR BLACK WITH BRUSHED ALUMINUM FACE.
3. LETTERS/CHEVRONS – MINIMUM 6" HIGH WITH 3/4" STROKE. RED OR GREEN LETTERS AS INDICATED. PROVIDE CHEVRONS AS INDICATED EITHER LEFT, RIGHT OR BOTH DIRECTIONS AS INDICATED. CHEVRONS PUNCHED OUT THROUGH HOUSING AS REQUIRED.
4. [REDACTED]
5. MOUNTING – UNIVERSAL MOUNTING KIT FOR CEILING, WALL OR END-OF-FIXTURE MOUNTING.
6. ILLUMINATION – PROVIDED BY RED, GREEN OR WHITE HIGH-OUTPUT LEDS INSIDE OF FIXTURE HOUSING. PROVIDE POLYSTYRENE DIFFUSER IN COLOR INDICATED WITH FREQUENCY-MATCHED SILKSCREEN COATING FOR MAXIMUM LED LIGHT OUTPUT.
7. CERTIFICATION – UL LISTED AND CERTIFIED FOR DAMP LOCATIONS.

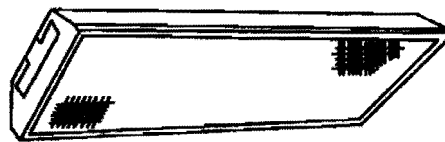
LED EXIT SIGN

REVISED:

AUGUST 2004

LIGHTING PLATE:

NL-63



LUMINAIRE REQUIREMENTS:

1. HOUSING - DIE-FORMED, COLD-ROLLED STEEL, WITH REINFORCEMENT RIBS FOR RIGIDITY. ENDCAPS SECURED WITH TABS, SCREWS OR RIVETS. FIXTURE SHALL NOT PERMANENTLY DEFORM OUT OF "SQUARE" WHEN PICKED UP FROM ANY CORNER. DEPTH AS INDICATED UNLESS SPECIFICALLY MANUFACTURED FOR OPTIMAL USE WITH T8 LAMPS.
2. FINISH - MULTI-STAGE PHOSPHATE BONDING TREATMENT FINISHED WITH HIGH REFLECTANCE (MINIMUM 85%), BAKED WHITE ENAMEL FINISH.
3. LENS - 100% ACRYLIC, CLEAR PRISMATIC, PATTERN #12 WITH MINIMUM 0.125" THICKNESS.
4. LAMPS - LINEAR FLUORESCENT T8, TYPICALLY WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE.
5. BALLAST - CLASS P, THERMALLY-PROTECTED, HIGH POWER FACTOR ($\geq .95$), ELECTRONIC TYPE WITH SOUND RATING A. SEE SPECIFICATION OR LIGHTING FIXTURE SCHEDULE FOR BALLAST OPTIONS AND SPECIFICS.
6. CERTIFICATION - UL LISTED AND LABELED.
7. PHOTOMETRICS - MINIMUM VALUE OF COEFFICIENT OF UTILIZATION (CU) AND EFFICIENCY, GIVEN INTERIOR CAVITY REFLECTANCES OF 80-50-20:

2 LAMP (F32/T8)

RCR	CU
1	80
2	71
3	64
4	57

EFFICIENCY - 77%

3 LAMP (F32/T8)

RCR	CU
1	79
2	70
3	63
4	56

EFFICIENCY - 75%

4 LAMP (F32/T8)

RCR	CU
1	76
2	68
3	61
4	54

EFFICIENCY - 71%

8. SEE NL-7 FOR OPTIONAL REQUIREMENTS ASSOCIATED WITH THIS FIXTURE. INCLUDE ALL INFORMATION IN LIGHTING FIXTURE SCHEDULE.

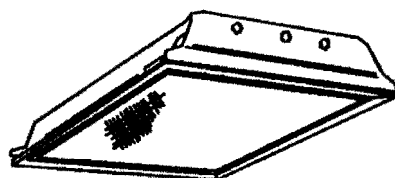
PRISMATIC LENS RECESSED 2' X 4' FLUORESCENT TROFFER

REVISED:

AUGUST 2004

LIGHTING PLATE:

NL-1



LUMINAIRE REQUIREMENTS:

1. HOUSING - DIE-FORMED, COLD-ROLLED STEEL, WITH REINFORCEMENT RIBS FOR RIGIDITY. ENDCAPS SECURED WITH TABS, SCREWS OR RIVETS. FIXTURE SHALL NOT PERMANENTLY DEFORM OUT OF "SQUARE" WHEN PICKED UP FROM ANY CORNER. DEPTH AS INDICATED UNLESS SPECIFICALLY MANUFACTURED FOR OPTIMAL USE WITH T8 LAMPS.
2. FINISH - MULTI-STAGE PHOSPHATE BONDING TREATMENT FINISHED WITH HIGH REFLECTANCE (MINIMUM 85%), BAKED WHITE ENAMEL FINISH.
3. LENS - 100% ACRYLIC, CLEAR PRISMATIC, PATTERN #12 WITH MINIMUM 0.125" THICKNESS.
4. LAMPS - COMPACT FLUORESCENT TT5, [REDACTED] TYPICALLY WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE.
5. BALLAST - CLASS P, THERMALLY-PROTECTED, HIGH POWER FACTOR ($\geq .95$), ELECTRONIC TYPE WITH SOUND RATING A. SEE SPECIFICATION OR LIGHTING FIXTURE SCHEDULE FOR BALLAST OPTIONS AND SPECIFICS.
6. CERTIFICATION - UL LISTED AND LABELED.
7. PHOTOMETRICS - MINIMUM VALUE OF COEFFICIENT OF UTILIZATION (CU) AND EFFICIENCY, GIVEN INTERIOR CAVITY REFLECTANCES OF 80-50-20:

2 LAMP (F40/TT5)

RCR	CU
1	72
2	64
3	58
4	52

EFFICIENCY - 67%

3 LAMP (F40/TT5)

RCR	CU
1	66
2	59
3	53
4	47

EFFICIENCY - 62%

8. SEE NL-7 FOR OPTIONAL REQUIREMENTS ASSOCIATED WITH THIS FIXTURE. INCLUDE ALL INFORMATION IN LIGHTING FIXTURE SCHEDULE.

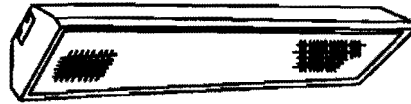
PRISMATIC LENS RECESSED 2' X 2' FLUORESCENT TROFFER

REVISED:

AUGUST 2004

LIGHTING PLATE:

NL-3



LUMINAIRE REQUIREMENTS:

1. HOUSING - DIE-FORMED, COLD-ROLLED STEEL, WITH REINFORCEMENT RIBS FOR RIGIDITY. ENDCAPS SECURED WITH TABS, SCREWS OR RIVETS. FIXTURE SHALL NOT PERMANENTLY DEFORM OUT OF "SQUARE" WHEN PICKED UP FROM ANY CORNER. DEPTH AS INDICATED UNLESS SPECIFICALLY MANUFACTURED FOR OPTIMAL USE WITH T8 LAMPS.
2. FINISH - MULTI-STAGE PHOSPHATE BONDING TREATMENT FINISHED WITH HIGH REFLECTANCE (MINIMUM 85%), BAKED WHITE ENAMEL FINISH.
3. LENS - 100% ACRYLIC, CLEAR PRISMATIC, PATTERN #12 WITH MINIMUM 0.125" THICKNESS.
4. LAMPS - LINEAR FLUORESCENT T8, TYPICALLY WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE.
5. BALLAST - CLASS P, THERMALLY-PROTECTED, HIGH POWER FACTOR ($\geq .95$), ELECTRONIC TYPE WITH SOUND RATING A. SEE SPECIFICATION OR LIGHTING FIXTURE SCHEDULE FOR BALLAST OPTIONS AND SPECIFICS.
6. CERTIFICATION - UL LISTED AND LABELED.
7. PHOTOMETRICS - MINIMUM VALUE OF COEFFICIENT OF UTILIZATION (CU) AND EFFICIENCY, GIVEN INTERIOR CAVITY REFLECTANCES OF 80-50-20:

2 LAMP (F32/T8)

RCR	CU
1	70
2	63
3	56
4	51

EFFICIENCY - 65%

8. SEE NL-7 FOR OPTIONAL REQUIREMENTS ASSOCIATED WITH THIS FIXTURE. INCLUDE ALL INFORMATION IN LIGHTING FIXTURE SCHEDULE.

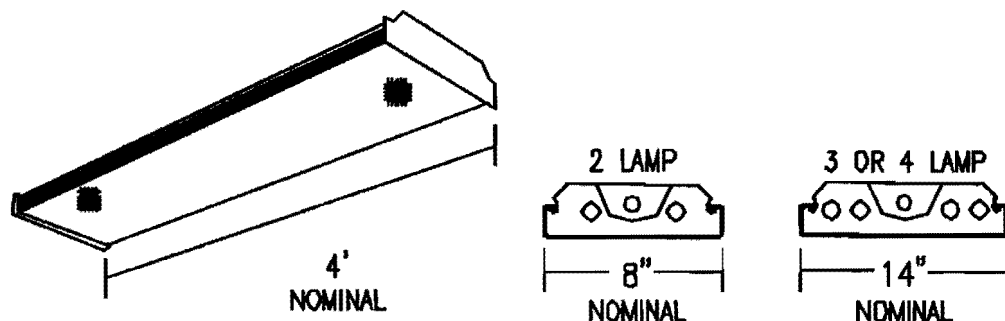
PRISMATIC LENS RECESSED 1' X 4' FLUORESCENT TROFFER

REVISED:

AUGUST 2004

LIGHTING PLATE:

NL-2



LUMINAIRE REQUIREMENTS:

1. HOUSING - DIE-FORMED, COLD-ROLLED STEEL, WITH REINFORCEMENT RIBS FOR RIGIDITY. ENDCAPS SHALL BE SAME MATERIAL AS HOUSING, SECURED WITH TABS, SCREWS OR RIVETS. FIXTURE SHALL NOT PERMANENTLY DEFORM OUT OF "SQUARE" WHEN PICKED UP FROM ANY CORNER.
2. FINISH - MULTI-STAGE PHOSPHATE BONDING TREATMENT FINISHED WITH HIGH REFLECTANCE (MINIMUM 85%), BAKED WHITE ENAMEL FINISH.
3. LENS - 100% ACRYLIC, CLEAR PRISMATIC, LINEAR SIDE PRISMS AND PYRAMIDAL BOTTOM PRISMS FOR BRIGHTNESS CONTROL AND MINIMAL LAMP IMAGING, RESPECTFULLY. LENS SHALL BE CAPABLE OF BEING HINGED FROM EITHER SIDE.
4. LAMPS - LINEAR FLUORESCENT T8, TYPICALLY WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE.
5. BALLAST - CLASS P, THERMALLY-PROTECTED, HIGH POWER FACTOR ($\geq .95$), ELECTRONIC TYPE WITH SOUND RATING A. SEE SPECIFICATION OR LIGHTING FIXTURE SCHEDULE FOR BALLAST OPTIONS AND SPECIFICS.
6. CERTIFICATION - UL LISTED AND LABELED.
7. PHOTOMETRICS - MINIMUM VALUE OF COEFFICIENT OF UTILIZATION (CU) AND EFFICIENCY, GIVEN INTERIOR CAVITY REFLECTANCES OF 80-50-20:

2 LAMP (F32/T8)

RCR	CU
1	76
2	67
3	60
4	54

EFFICIENCY - 76%

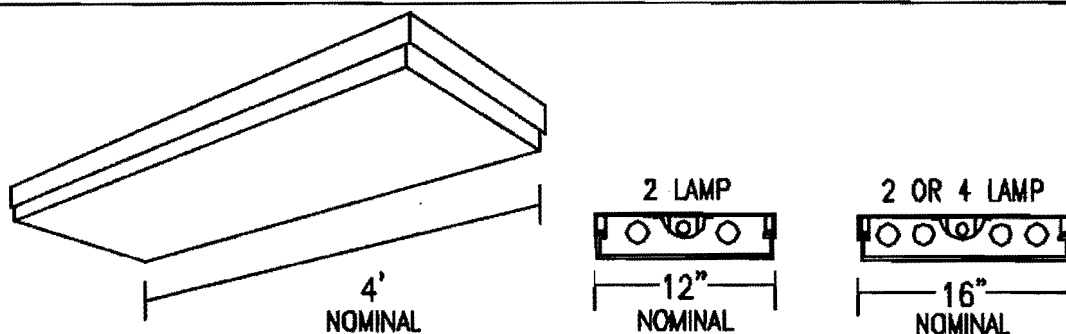
FLUORESCENT WRAPAROUND - UTILITY AREAS

REVISED:

AUGUST 2004

LIGHTING PLATE:

NL-11



LUMINAIRE REQUIREMENTS:

1. HOUSING - DIE-FORMED, COLD-ROLLED STEEL, WITH REINFORCEMENT RIBS FOR RIGIDITY. ENDCAPS SECURED WITH TABS, SCREWS OR RIVETS. FIXTURE SHALL NOT PERMANENTLY DEFORM OUT OF "SQUARE" WHEN PICKED UP FROM ANY CORNER.
2. FINISH - MULTI-STAGE PHOSPHATE BONDING TREATMENT FINISHED WITH HIGH REFLECTANCE (MINIMUM 85%), BAKED WHITE ENAMEL FINISH.
3. LENS - 100% ACRYLIC, CLEAR PRISMATIC. LENS SHALL BE ONE-PIECE INJECTION MOLDED, FULL 5-SIDED UNIT WITH LUMINOUS ENDS. PROVIDE EXTRUDED LENS AS OPTION IN LIEU OF INJECTION MOLDED LENS. PROVIDE SPRING-LOADED LATCHING SYSTEM TO SECURE LENS TO BASE HOUSING.
4. LAMPS - LINEAR FLUORESCENT T8, TYPICALLY WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE.
5. BALLAST - CLASS P, THERMALLY-PROTECTED, HIGH POWER FACTOR ($\geq .95$), ELECTRONIC TYPE WITH SOUND RATING A. SEE SPECIFICATION OR LIGHTING FIXTURE SCHEDULE FOR BALLAST OPTIONS AND SPECIFICS.
6. CERTIFICATION - UL LISTED AND LABELED.
7. PHOTOMETRICS - MINIMUM VALUE OF COEFFICIENT OF UTILIZATION (CU) AND EFFICIENCY, GIVEN INTERIOR CAVITY REFLECTANCES OF 80-50-20:

2 LAMP (F32/T8)

RCR	CU
1	74
2	65
3	57
4	51

EFFICIENCY - 83%

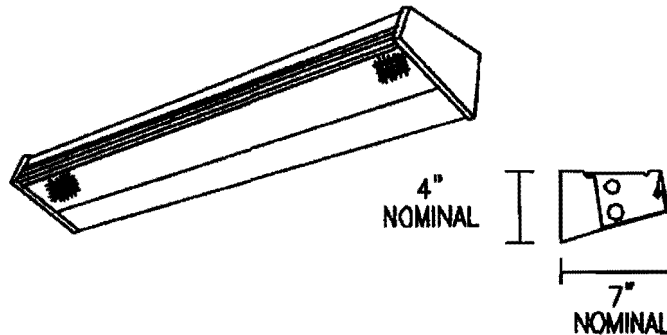
FLUORESCENT WRAPAROUND - OFFICE/CLASSROOM AREAS

REVISED:

AUGUST 2004

LIGHTING PLATE:

NL-10



LUMINAIRE REQUIREMENTS:

1. HOUSING – DIE-FORMED, HEAVY-GAUGE, COLD-ROLLED STEEL WITH ENDCAPS MADE FROM THE SAME MATERIAL AS HOUSING.
2. FINISH – MULTI-STAGE PHOSPHATE BONDING TREATMENT FINISHED WITH HIGH REFLECTANCE (MINIMUM 85%), BAKED WHITE ENAMEL FINISH. DARK BRONZE OR BLACK FINISH AVAILABLE. SEE LIGHTING FIXTURE SCHEDULE.
3. LENS – 100% ACRYLIC, HIGH-IMPACT, CLEAR PRISMATIC DIFFUSER.
4. LAMPS – LINEAR FLUORESCENT T8 TYPICALLY, WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE.
5. BALLAST – CLASS P, THERMALLY-PROTECTED, HIGH POWER FACTOR ($\geq .95$), ELECTRONIC TYPE WITH SOUND RATING A. SEE SPECIFICATION OR LIGHTING FIXTURE SCHEDULE FOR BALLAST OPTIONS AND SPECIFICS.
6. CERTIFICATION – UL LISTED AND LABELED.
7. FIXTURE TYPES –
 - TYPE A – 2' LENGTH W/ 2-T8 FLUORESCENT LAMPS
 - TYPE B – 3' LENGTH W/ 2-T8 FLUORESCENT LAMPS
 - TYPE C – 4' LENGTH W/ 2-T8 FLUORESCENT LAMPS
8. OPTIONS –
 - FIXED UP AND DOWN LIGHT
 - SWITCHED UP AND/OR DOWN LIGHT
 - DOWN LIGHT ONLY WITH SOLID TOP

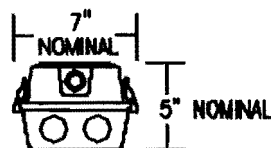
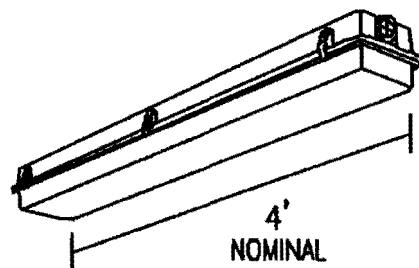
WALL-MOUNTED FLUORESCENT

REVISED:

AUGUST 2004

LIGHTING PLATE:

NL-21



LUMINAIRE REQUIREMENTS:

1. HOUSING - ONE-PIECE, IMPACT-RESISTANT, FIBERGLASS REINFORCED POLYESTER WITH ENCLOSED COLD-ROLLED STEEL WIREWAY.
2. FINISH - STEEL REFLECTOR WITH MULTI-STAGE PHOSPHATE BONDING TREATMENT FINISHED WITH HIGH REFLECTANCE (MINIMUM 85%), BAKED WHITE ENAMEL FINISH.
3. LENS - 100% CLEAR ACRYLIC/OR OPTICAL DIFFUSER. STIPPLED INTERIOR SURFACES AND SMOOTH EXTERIOR. CLOSED CELL NEOPRENE GASKET WITH CAPTIVE NONMETALLIC, SNAP ACTION CAM LATCHES TO SECURE LENS TO HOUSING.
4. LAMPS - LINEAR FLUORESCENT T8, TYPICALLY WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE.
5. BALLAST - CLASS P, THERMALLY-PROTECTED, HIGH POWER FACTOR ($\geq .95$), ELECTRONIC TYPE WITH SOUND RATING A. SEE SPECIFICATION OR LIGHTING FIXTURE SCHEDULE FOR BALLAST OPTIONS AND SPECIFICS.
6. CERTIFICATION - UL LISTED AND LABELED. SUITABLE FOR DAMP OR WET LOCATION AS DESIGNATED IN LIGHTING FIXTURE SCHEDULE.
7. PHOTOMETRICS - MINIMUM VALUE OF COEFFICIENT OF UTILIZATION (CU) AND EFFICIENCY, GIVEN INTERIOR CAVITY REFLECTANCES OF 80-50-20:

2 LAMP (F32/T8)

RCR	CU
1	78
2	67
3	58
4	51

EFFICIENCY - 76%

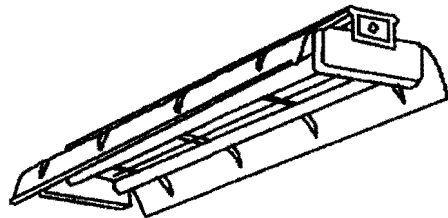
FIBERGLASS HOUSING DAMP/WET LOCATION FLUORESCENT

REVISED:

AUGUST 2004

LIGHTING PLATE:

NL-19



LUMINAIRE REQUIREMENTS:

1. HOUSING - DIE-FORMED, COLD-ROLLED STEEL, WITH REINFORCEMENT RIBS FOR RIGIDITY. ENDCAPS SECURED WITH TABS, SCREWS OR RIVETS. FIXTURE SHALL NOT PERMANENTLY DEFORM OUT OF "SQUARE" WHEN PICKED UP FROM ANY CORNER.
2. FINISH - MULTI-STAGE PHOSPHATE BONDING TREATMENT FINISHED WITH HIGH REFLECTANCE (MINIMUM 85%), BAKED WHITE ENAMEL FINISH.
3. LAMPHOLDERS- PRESSURE-LOCKED TYPE ENCLOSED IN TURRET HOUSING.
4. REFLECTOR - DIE-FORMED, COLD-ROLLED STEEL WITH TRANSVERSE RIBS FOR RIGIDITY. SOLID, 10% UPLIGHT APERTURE OR 20% UPLIGHT APERTURE AS INDICATED IN LIGHTING FIXTURE SCHEDULE.
5. LAMPS - LINEAR FLUORESCENT T8. TYPICALLY WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE.
6. BALLAST - CLASS P, THERMALLY-PROTECTED, HIGH POWER FACTOR ($\geq .95$), ELECTRONIC TYPE WITH SOUND RATING A. SEE SPECIFICATION OR LIGHTING FIXTURE SCHEDULE FOR BALLAST OPTIONS AND SPECIFICS.
7. CERTIFICATION - UL LISTED AND LABELED.
8. OPTIONS - CHAIN HANGER AND PLATED STEEL WIRE GUARD.
9. PHOTOMETRICS - MINIMUM VALUE OF COEFFICIENT OF UTILIZATION (CU) AND EFFICIENCY, GIVEN INTERIOR CAVITY REFLECTANCES OF 80-50-20:

2 LAMP (F32/T8)

RCR	CU
1	90
2	79
3	69
4	61

EFFICIENCY - 90%

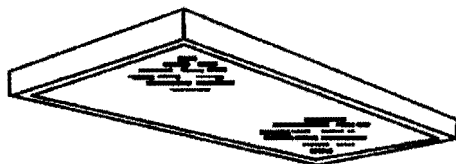
INDUSTRIAL FLUORESCENT

REVISED:

AUGUST 2004

LIGHTING PLATE:

NL-13



3.5" NOMINAL

LUMINAIRE REQUIREMENTS:

1. HOUSING - DIE-FORMED, COLD-ROLLED STEEL, WITH REINFORCEMENT RIBS FOR RIGIDITY. FIXTURE SHALL NOT DEFORM OUT OF "SQUARE" WHEN PICKED UP FROM FROM ANY CORNER. ALL FOUR EXTERIOR SIDES SHALL BE MITERED AND FREE FROM HOLES OR LIGHT-PENETRATING CAPS OR SPACES, FINISHED IN BAKED WHITE ENAMEL.
2. FINISH - MULTI-STAGE PHOSPHATE BONDING TREATMENT FINISHED WITH HIGH REFLECTANCE (MINIMUM 85%), BAKED WHITE ENAMEL FINISH.
3. DOOR - FLUSH STEEL, LIGHT-TIGHT WITH OR WITHOUT THE USE OF GASKETS. PROVIDE TEE HINGES AND ROTARY-ACTION CAM LATCHES TO SECURE TO HOUSING.
4. LENS - 100% ACRYLIC, CLEAR PRISMATIC, PATTERN #12 WITH MINIMUM 0.156" THICKNESS.
5. LAMPS - LINEAR FLUORESCENT T8, TYPICALLY WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE.
6. BALLAST - CLASS P, THERMALLY-PROTECTED, HIGH POWER FACTOR ($\geq .95$), ELECTRONIC TYPE WITH SOUND RATING A. SEE SPECIFICATION OR LIGHTING FIXTURE SCHEDULE FOR BALLAST OPTIONS AND SPECIFICS.
7. CERTIFICATION - UL LISTED AND LABELED.
8. PHOTOMETRICS - MINIMUM VALUE OF COEFFICIENT OF UTILIZATION (CU) GIVEN INTERIOR CAVITY REFLECTANCES OF 80-50-20:

2' x 4'
2 LAMP (F32/T8)

RCR	CU
1	83
2	74
3	66
4	59

EFFICIENCY - 78%

2' x 2'
2 LAMP (F40/T5)

RCR	CU
1	79
2	70
3	66
4	55

EFFICIENCY - 74%

STEEL-SIDED SURFACE-MOUNTED FLUORESCENT

REVISED:

AUGUST 2004

LIGHTING PLATE:

NL-20