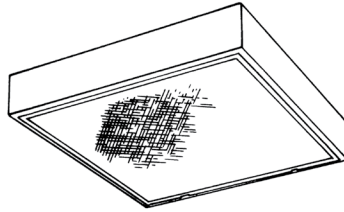


PHILIPS
Day-Brite
CFI

Surface

Surface Modular 2x2

T5, T5HO, or T8



Project: _____
 Location: _____
 Cat.No: _____
 Type: _____
 Lamps: _____ Qty: _____
 Notes: _____

The Philips Day-Brite / Philips CFI Surface Modular luminaire is a shallow body, surface mounted premium grade luminaire with a variety of door frames and lens options available.

Ordering guide

Example: 2SMR217-FS01-UNV-1/2-EBHE

Width	Family	No. of Lamps (not included)	Lamp Type	Door Frame	Lens	Voltage	Options
2	SMR						
2 2'	SMR Surface Modular	2 3 (except 31U6) 4 (14, 17, or 24HO only)	14 14WT5 (22") 17 17WT8 (24") 24HO 24WT5HO (22") 31U1 31WT8 1-5/8" (24") 31U6 31WT8 6" (24")	FS Flat Steel FA Flat Aluminum RA Regressed Aluminum TFS Tamper Resistant Flat Steel	01 Pattern 12 prismatic acrylic 12 K-12, .125" nominal 19 K-19, .156" nominal 21 Pattern 12, .125" nominal 30 1/2"x1/2"x1/2" silver polystyrene louver 34 1-1/2"x1-1/2"x1" silver polystyrene louver 52 3/4"x3/4"x1/2" silver polystyrene louver 56 .187" nominal DR high impact acrylic (recommended w/ TFS door)	120 277 347 UNV Universal Voltage 120-277V	1/2 One 2-lamp ballast 1/3 One 3-lamp ballast 1/21 2-lamp & 1-lamp ballasts 1/4 One 4-lamp ballast 2/2 Two 2-lamp ballasts EB Electronic ballast, <10% THD, std. ballast factor EB10R T8 electronic ballast, program rapid start, <10% THD EBHE T8 electronic ballast, high efficiency, std. ballast factor EBLHE T8 electronic ballast, high efficiency, low ballast factor EBHHE T8 electronic ballast, high efficiency, high ballast factor EBSD T8 electronic step dimming ballast, .88 ballast factor EBD7 Advance Mark 7 dimming ballast, 0-10V (low voltage) control EBDX Advance Mark 10 dimming ballast, phase control EBD Electronic dimming ballast, customer specified E1 B100 emerg. ballast, T8, 350-450 lumens, 120/277V E1CAN B100-CAN emerg. ballast, Canada market, T8, 350-450 lumens, 120/347V E7 B60 emerg. ballast, T8, 600-700 lumens, 120/277V E5 B50 emerg. ballast, U.S. or Canada market, T8, 1100-1400 lumens, UNV (3 lamp or 2 lamp 31U6 only) E5-CAN B50-CAN emerg. ballast, Canada market, T8, 1100-1400 lumens, 120/347V (3 lamp or 2 lamp 31U6 only) ESST B50ST emerg. ballast w/self test, T8, 1100-1400 lumens, UNV (3 lamp or 2 lamp 31U6 only) GLR Fusing, fast blow 1W 1-way gasketing, between lens & door frame (not avail. w/RA door) 2W 2-way gasketing, 1W + gasketing between door frame & housing

Accessories (order separately)

- **TPDTH** Tamper proof driver, Torx T-15 head pin drive and handle (required with TR option)
- **CS-400** Rigid canopy
- **CS-500** 42" top swivel canopy
- **CS-12** 12" Stem
- **CS-18** 18" Stem
- **CS-24** 24" Stem
- **CS-30** 30" Stem
- **CS-36** 36" Stem
- **CS-48** 48" Stem



2SMR Surface Modular luminaire 2x2

T5, T5HO, or T8

Construction/Finish

- For surface or pendant mounting. 2 and 4 lamp 31U1 or straight lamp models require 2 stems for pendant mounting, 231U6 and 3 lamp models require 4 stems.
- 4" deep metal sided unit allows a wide choice of lens and shallow metal or plastic louvers.
- Housing is multi-stage phosphate treated for maximum corrosion resistance and painted after fabrication with white polyester powder coating.
- K.O.'s provided in ends allow individual or continuous row mounting.

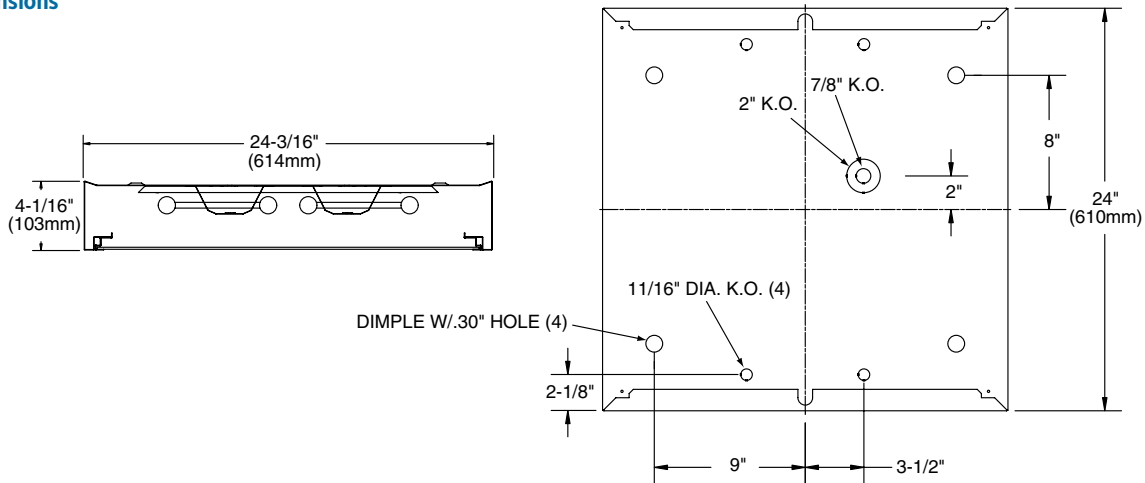
Electrical

- cULus listed for direct mounting on low density ceilings and damp locations.
- Self-contained fluorescent emergency power packs can be incorporated.

Enclosure

- Mitered corner door frames painted after fabrication with a choice of Flat Steel, Flat Aluminum, Regressed Aluminum, or Tamper Resistant Flat Steel.
- Door frames standard with guide post spring loaded latches.
- Prismatic acrylic pattern 12 lens standard (01). Other lenses or louvers optional.
- Can be hinged and latched from either side.
- TFS Door latches secured with 2 Torx head pin drive screws
- Special screwdriver required for TFS door, catalog #TPDTH sold separately
- #56 Lens withstands impact of 70 ft lbs. at 75°F. with the lens supported on all four edges.

Dimensions



PHOTOMETRIC DATA

CATALOG # 2SMR231U6-FS01-1/2-EB
TEST #25054 S/MH=1.3

LAMPS = FBO31U6

BALLAST = ELECTRONIC

INPUT WATTS = 56

BALLAST FACTOR = .88

LER = FL-62

TER = 55

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = \$3.87 BASED ON 3000 HRS. AND \$.08 PER KWH.

FIXTURE EFFICIENCY= 70.0%

CANDLEPOWER				
Angle	End	45	Cross	
0	1505	1505	1505	
5	1494	1499	1500	
10	1472	1484	1495	
15	1435	1462	1485	
20	1385	1429	1466	
25	1323	1383	1430	
30	1241	1315	1379	
35	1144	1232	1306	
40	1023	1121	1209	
45	886	985	1085	
50	729	819	914	
55	581	655	727	
60	449	491	536	
65	333	338	377	
70	242	225	265	
75	169	158	199	
80	113	116	147	
85	59	65	83	

MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture*

■ 80-50-20 Reflectances (Ceiling-Wall-Floor)

■ LLF = 0.76 2800 Lumens/Lamp very clean

■ Room width divided by room height = 5 or more, 2 or 1

Fixture Size & # of Lamps	Room Width Room Height =	Approx. Area (sq. ft.) per Fixture				
		10 ft-c	30 ft-c	50 ft-c	70 ft-c	100 ft-c
2' X 2'	5	-	104	63	45	31
2-Lamp 31U6	2	-	73	44	31	-
	1	-	54	32	-	-

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 2800 LUMEN LAMPS				
ANGLE	END	45°	CROSS	
45	4352	4838	5330	
55	3518	3966	4402	
65	2737	2778	3098	
75	2268	2120	2671	
85	2351	2590	3308	

TYPICAL V.C.P.'s				
Room Size	Mounting Height			
	Lengthwise	Crosswise	8.5	10
30x30	50	54	47	52
40x40	47	50	44	47
60x30	52	56	51	55
60x60	44	46	40	43
100x100	42	43	38	39

COEFFICIENT OF UTILIZATION

pfc pcc pw	20				70				50			
	70	50	30	70	50	30	50	30	70	50	30	
RCR	0	82	82	82	81	81	81	78	78	78	78	
	1	77	73	70	75	71	68	68	67	68	67	
	2	69	65	59	68	63	58	60	57	60	57	
	3	64	56	52	63	56	51	54	50	54	50	
	4	58	51	45	57	50	45	47	44	47	44	
	5	55	46	40	53	45	39	44	39	44	39	
	6	50	40	34	48	40	34	40	34	40	34	
	7	46	38	32	46	36	30	35	30	35	30	
	8	44	34	28	42	34	28	33	28	33	28	
	9	40	32	26	40	30	26	29	26	29	26	
	10	38	28	23	36	28	23	28	23	28	23	

LIGHT DISTRIBUTION

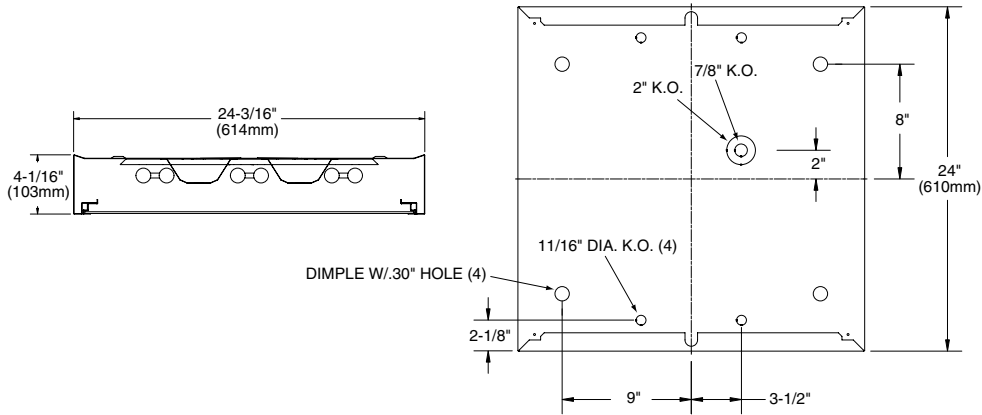
DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	1193	21.3	30.4
0-40	1963	35.0	50.0
0-60	3307	59.0	84.3
0-90	3922	70.0	100.0

LLF = .76 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90
LLD = 0.92 @ 40% RATED LAMP LIFE BF = .88 ELECTRONIC BALLAST & 31U6 LAMP (RELAMP AT 70% LAMP LIFE)

2SMR Surface Modular luminaire 2x2

T5, T5HO, or T8

Dimensions



PHOTOMETRIC DATA

CATALOG # 2SMR231U1-FS01-1/2-EB LAMPS = FB031U1 INPUT WATTS = 54 LER = FL-69
 TEST #25049 S/MH=1.3 BALLAST = ELECTRONIC BALLAST FACTOR = .88 TER = 61

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = \$3.48 BASED ON 3000 HRS. AND \$.08 PER KWH. FIXTURE EFFICIENCY= 75.5%

CANDLEPOWER				
Angle	End	45	Cross	
0	1633	1633	1633	
5	1626	1626	1628	
10	1603	1612	1622	
15	1561	1586	1607	
20	1505	1547	1583	
25	1431	1491	1543	
30	1344	1423	1488	
35	1235	1332	1416	
40	1097	1226	1320	
45	944	1075	1175	
50	771	898	974	
55	617	719	756	
60	481	530	548	
65	356	364	382	
70	262	245	276	
75	181	172	208	
80	123	127	160	
85	69	73	93	

MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture*

- 80 - 50 - 20 Reflectances (Ceiling - Wall - Floor)
- LLF = 0.76 2800 Lumens/Lamp very clean
- Room width divided by room height = 5 or more, 2 or 1

Fixture Size & # of Lamps	Room Width Room Height =	Approx. Area (sq. ft.) per Fixture				
		10 ft-c	30 ft-c	50 ft-c	70 ft-c	100 ft-c
2' X 2' 2-Lamp 3IU1	5 2 1	- 78 -	113 47 58	68 47 35	48 34 -	34 -

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 2800 LUMEN LAMPS				
ANGLE	END	45°	CROSS	
45	4637	5281	5772	
55	3736	4354	4578	
65	2926	2992	3140	
75	2429	2308	2791	
85	2750	2909	3706	

TYPICAL V.C.P.'s				
Room Size	Mounting Height			
	8.5	10	8.5	10
30x30	48	52	46	50
40x40	45	48	42	46
60x30	50	54	49	53
60x60	41	44	38	41
100x100	39	41	36	37

COEFFICIENT OF UTILIZATION

pfc	20				70				50			
	70	50	30	70	50	30	50	30	70	50	30	
RCR	0	90	90	90	88	88	88	83	83	83	83	
1	82	79	76	81	78	75	73	71	71	71	71	
2	76	69	65	73	68	64	66	61	61	61	61	
3	68	61	56	68	60	55	57	54	54	54	54	
4	64	55	48	61	54	47	52	46	46	46	46	
5	58	50	42	56	48	42	46	41	41	41	41	
6	54	45	38	53	44	38	42	36	36	36	36	
7	51	40	34	48	40	34	39	33	33	33	33	
8	46	36	30	46	36	30	35	29	29	29	29	
9	44	34	28	42	34	28	33	28	28	28	28	
10	40	32	26	40	30	26	29	25	25	25	25	

LIGHT DISTRIBUTION

DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	1291	23.1	30.6
0-40	2123	37.9	50.2
0-60	3570	63.7	84.5
0-90	4226	75.5	100.0

LLF = .76 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90
 LLD = 0.92 @ 40% RATED LAMP LIFE BF = .88 ELECTRONIC BALLAST & 3IU1 LAMP (RELAMP AT 70% LAMP LIFE)

PHOTOMETRIC DATA

CATALOG # 2SMR331U1-FS01-1/3-EB LAMPS = FB031U1 INPUT WATTS = 95 LER = FL-52
 TEST #25056 S/MH=1.3 BALLAST = ELECTRONIC BALLAST FACTOR = .88 TER = 46

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = \$4.62 BASED ON 3000 HRS. AND \$.08 PER KWH. FIXTURE EFFICIENCY= 66.7%

CANDLEPOWER				
Angle	End	45	Cross	
0	2207	2207	2207	
5	2196	2196	2206	
10	2163	2175	2199	
15	2111	2142	2173	
20	2035	2087	2137	
25	1939	2014	2079	
30	1816	1916	1994	
35	1668	1787	1885	
40	1480	1621	1736	
45	1276	1409	1531	
50	1038	1167	1269	
55	820	929	986	
60	632	680	724	
65	471	469	507	
70	342	312	361	
75	240	222	275	
80	162	163	204	
85	85	91	113	

MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture*

- 80 - 50 - 20 Reflectances (Ceiling - Wall - Floor)
- LLF = 0.76 2800 Lumens/Lamp very clean
- Room width divided by room height = 5 or more, 2 or 1

Fixture Size & # of Lamps	Room Width Room Height =	Approx. Area (sq. ft.) per Fixture				
		10 ft-c	30 ft-c	50 ft-c	70 ft-c	100 ft-c
2' X 2' 3-Lamp 3IU1	5 2 1	- 104 77	149 104 46	90 63 46	64 45 33	45 31 -

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 2800 LUMEN LAMPS				
ANGLE	END	45°	CROSS	
45	6268	6921	7520	
55	4966	5626	5971	
65	3871	3855	4167	
75	3221	2979	3691	
85	3387	3627	4503	

TYPICAL V.C.P.'s				
Room Size	Mounting Height			
	8.5	10	8.5	10
30x30	41	45	39	44
40x40	39	42	36	39
60x30	44	48	43	47
60x60	36	38	33	35
100x100	34	35	31	32

COEFFICIENT OF UTILIZATION

pfc	20				70				50			
	70	50	30	70	50	30	50	30	70	50	30	
RCR	0	79	79	79	78	78	78	73	73	73	73	
1	72	69	67	70	68	66	66	64	64	64	64	
2	67	61	57	65	60	56	57	55	55	55	55	
3	60	55	50	59	54	48	52	47	47	47	47	
4	56	48	42	55	47	42	46	41	41	41	41	
5	52	44	38	51	42	38	41	36	36	36	36	
6	47	40	34	46	39	34	38	33	33	33	33	
7	45	35	30	44	35	29	34	29	29	29	29	
8	41	33	28	40	33	27	32	27	27	27	27	
9	39	29	25	38	29	25	28	25	25	25	25	
10	36	28	23	35	28	23	27	23	23	23	23	

LIGHT DISTRIBUTION

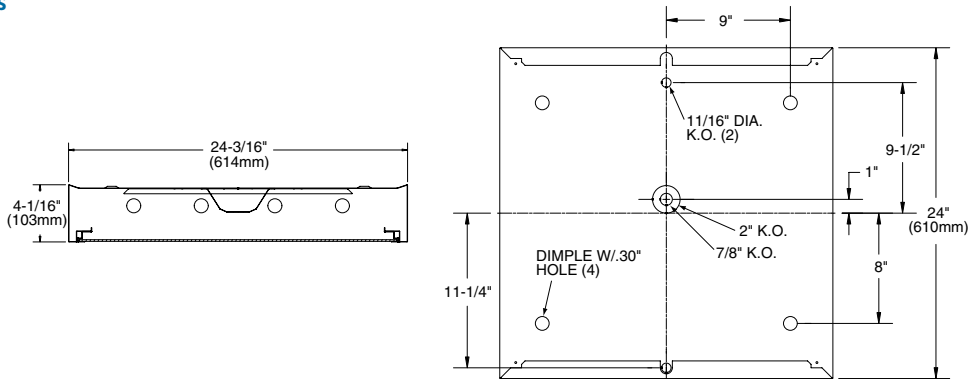
DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	1740	20.7	31.0
0-40	2854	34.0	50.9
0-60	4752	56.6	84.8
0-90	5605	66.7	100.0

LLF = .76 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90
 LLD = 0.92 @ 40% RATED LAMP LIFE BF = .88 ELECTRONIC BALLAST & 3IU1 LAMP (RELAMP AT 70% LAMP LIFE)

2SMR Surface Modular luminaire 2x2

T5, T5HO, or T8

Dimensions



PHOTOMETRIC DATA

CATALOG # 2SMR217-FS01-1/2-EB
TEST #25191 S/MH=1.4

LAMPS = F17T8
BALLAST = ELECTRONIC

INPUT WATTS = 34
BALLAST FACTOR = .88

LER = FL-51
TER = 45

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = \$4.71 BASED ON 3000 HRS. AND \$.08 PER KWH.

FIXTURE EFFICIENCY= 73.7%

CANDLEPOWER				
Angle	End	45	Cross	
0	721	721	721	
5	720	718	717	
10	710	713	717	
15	692	705	715	
20	669	692	711	
25	639	673	700	
30	600	648	687	
35	550	613	659	
40	491	566	620	
45	424	500	560	
50	346	421	474	
55	276	339	369	
60	216	251	272	
65	162	173	191	
70	119	114	136	
75	83	79	100	
80	57	59	75	
85	32	35	43	

MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture*						
<ul style="list-style-type: none"> 80-50-20 Reflectances (Ceiling-Wall-Floor) LLF = 0.75 1325 Lumens/Lamp very clean Room width divided by room height = 5 or more, 2 or 1 						
Fixture Size & # of Lamps	Room Width Room Height =	Approx. Area (sq. ft.) per Fixture				
		10 ft-c	30 ft-c	50 ft-c	70 ft-c	100 ft-c
2' X 2'	5	-	51	30	-	-
2-Lamp	2	107	35	-	-	-
T8	1	78	26	-	-	-

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 1325 LUMEN LAMPS			
ANGLE	END	45	CROSS
45	1899	2239	2508
55	1524	1871	2037
65	1214	1296	1431
75	1015	967	1223
85	1163	1272	1562

TYPICAL V.C.P.'s				
Room Size	Mounting Height		Crosswise	
	8.5	10	8.5	10
30x30	68	72	65	69
40x40	65	68	62	66
60x30	70	73	68	72
60x60	62	65	58	61
100x100	59	60	55	57

COEFFICIENT OF UTILIZATION									
pfc pcc pw	20		70		50				
	70	50	30	70	50	30	50	30	
RCR									
0	88	88	88	85	85	85	81	81	
1	81	77	73	79	76	72	71	69	
2	73	68	63	71	67	61	64	59	
3	68	59	54	66	58	54	56	52	
4	61	54	46	59	53	46	51	46	
5	56	47	41	56	46	40	46	40	
6	53	42	36	51	42	36	40	35	
7	48	39	33	47	39	33	38	32	
8	46	35	29	45	34	29	34	28	
9	42	33	27	41	33	27	32	27	
10	40	29	25	39	29	25	28	23	

LIGHT DISTRIBUTION			
DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	579	21.8	29.6
0-40	961	36.3	49.2
0-60	1642	62.0	84.1
0-90	1952	73.7	100.0

LLF = .75 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90
LLD = 0.91 @ 40% RATED LAMP LIFE BF = .88 ELECTRONIC BALLAST & T8 LAMP (RELAMP AT 70% LAMP LIFE)

2SMR Surface Modular luminaire 2x2

T5, T5HO, or T8

PHOTOMETRIC DATA

CATALOG # 2SMR417-F501-1/4-EB LAMPS = F17T8 INPUT WATTS = 59 LER = FL-53
 TEST #25200 S/MH-1.3 BALLAST = ELECTRONIC BALLAST FACTOR = .88 TER = 60

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = \$4.53 BASED ON 3000 HRS. AND \$.08 PER KWH. FIXTURE EFFICIENCY= 66.4%

CANDLEPOWER			
Angle	End	45	Cross
0	1369	1369	1369
5	1405	1354	1355
10	1384	1344	1350
15	1349	1324	1340
20	1300	1295	1324
25	1241	1253	1292
30	1164	1193	1243
35	1066	1118	1180
40	949	1018	1091
45	815	887	971
50	666	743	815
55	527	586	640
60	404	437	472
65	302	298	326
70	219	196	230
75	152	136	173
80	102	101	128
85	55	57	69

MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture*						
<ul style="list-style-type: none"> ■ 80-50-20 Reflectances (Ceiling-Wall-Floor) ■ LLF = 0.75 1325 Lumens/Lamp very clean ■ Room width divided by room height = 5 or more, 2 or 1 						
Fixture Size & # of Lamps	Room Width Room Height =	Approx. Area (sq. ft.) per Fixture				
		10 ft-c	30 ft-c	50 ft-c	70 ft-c	100 ft-c
2' X 2'	5	-	93	56	40	28
4-Lamp	2	-	65	39	28	-
T8	1	-	48	29	-	-

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 1325 LUMEN LAMPS			
ANGLE	END	45	CROSS
45	3650	3972	4348
55	2909	3235	3533
65	2263	2233	2443
75	1860	1664	2117
85	1998	2071	2507

TYPICAL V.C.P.'s			
Room Size	Mounting Height		
	Lengthwise	Crosswise	
	8.5	10	8.5 10
30x30	56	60	53 58
40x40	53	52	50 53
60x30	58	62	57 61
60x60	49	52	44 46
100x100	47	49	44 46

COEFFICIENT OF UTILIZATION					
pfc pcc pw RCR	20		70		50
	70	50 30	70	50 30	50 30
0	79	79 79	77 77 77	73 73	73 73
1	72	69 67	70 68 66	66 64	66 64
2	67	61 56	65 59 56	57 55	57 55
3	60	55 48	59 54 48	48 52 47	48 52 47
4	56	48 42	55 47 42	46 41	46 41
5	52	44 38	51 42 38	41 36	41 36
6	47	40 34	46 39 34	38 33	38 33
7	45	35 29	42 34 29	34 29	34 29
8	41	33 27	40 32 27	32 27	32 27
9	39	29 25	38 29 25	28 23	28 23
10	35	28 23	35 28 23	27 22	27 22

LIGHT DISTRIBUTION			
DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	1084	20.5	30.8
0-40	1781	33.6	50.6
0-60	2988	56.4	84.8
0-90	3522	66.4	100.0

LLF = .75 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90
 LLD = 0.91 @ 40% RATED LAMP LIFE BF = .88 ELECTRONIC BALLAST & T8 LAMP (RELAMP AT 70% LAMP LIFE)



Some luminaires use fluorescent or high intensity discharge (HID) lamps that contain small amounts of mercury. Such lamps are labeled, "Contain Mercury" and/or the symbol "HG". Lamps that contain mercury must be disposed of in accordance with local requirements. Information regarding lamp recycling and disposal can be found at www.lamprecycle.org

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