

**2 or 3 Lamp
T5 or T5HO**

These luminaires meet the requirements of IESNA RP-1 for use in spaces containing Video Display Terminals.

APPLICATION

- Low-glare VDT performance with a clean, modern, architectural appearance.
- Sleek, contoured low profile housing provides visual interest without dominating the room.
- Designed around T5 lamps to provide high efficiency, precise optical control and compact dimensions.
- Wide spacing/mounting height ratio and batwing distribution allow wider luminaire spacing without sacrificing uniformity, creating lower installation and maintenance costs.
- Illuminated opal or perforated panels between louvers offer subtle, glare free brightness and provide an open and airy feel without the “black hole” appearance of traditional specular parabolics.
- Available solid panels between louvers provide maximum brightness control at normal viewing angles for applications where visual comfort is primary.
- Luminous intensity meets the “Normal” requirements of IESNA RP-1. Some models meet the “Intensive” requirements of RP-1.
- Available T5HO lamps provide high lumen packages and allow higher illumination levels or fewer luminaires.

CONSTRUCTION/FINISH

- Low profile design protrudes less than 3-1/2" from ceiling.
- Extruded aluminum external construction provides accurate, high quality fit and finish.

- Housing is painted after fabrication with matte white baked polyester powder finish.
- Approximate weight 25 lbs.

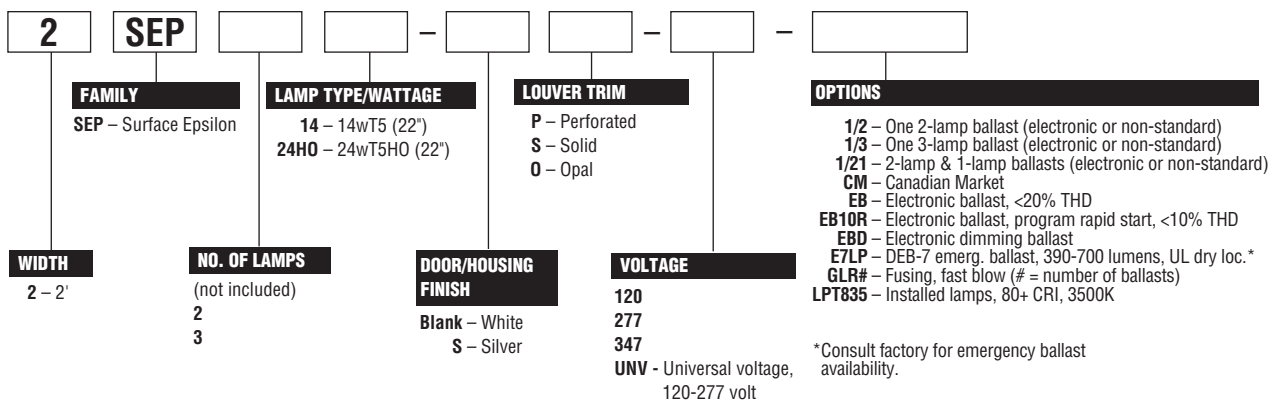
ELECTRICAL

- UL listed for damp locations. Canadian certified optional.
- Self-contained low-profile fluorescent emergency power packs can be incorporated, UL dry location listed.

ENCLOSURES

- Enclosure includes aluminum rails and mitered corners.
- Narrow louvers are specifically designed for use with T5 lamps and constructed from 95% reflective specular aluminum to provide maximum optical control.
- 2 lamp models have 2 louvers with panels outboard and a panel between. 3 lamp models have 3 louvers with panels between.
- Louvers have 12 cells each (1-3/4" blade spacing).
- Panels between louvers available solid, opal translucent or micro-perforated metal with white overlay.
- “T” hinges provide reliable support of the enclosure.
- Premium guide-post spring loaded latches provide easy access to the lamp compartment and secure retention of the enclosure.
- Can be hinged and latched from either side.
- Shielding angles are 29° lengthwise and 35° crosswise.

CATALOG NUMBER



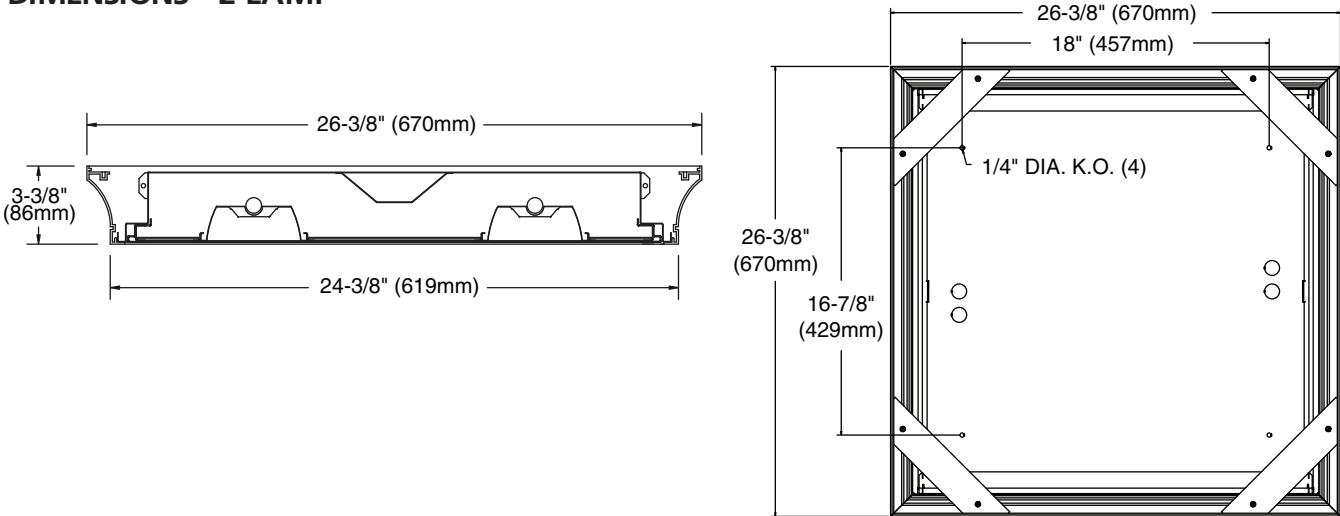
JOB INFORMATION

908-SS

2' x 2' SURFACE Epsilon™



DIMENSIONS - 2 LAMP



PHOTOMETRIC DATA

CATALOG #2SEP224HO-0-1/2-EB
TEST #24305 S/MH=1.9

LAMPS = F24T5HO
BALLAST = ELECTRONIC

INPUT WATTS = 55
BALLAST FACTOR = 1.00

LER = F-45

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = \$5.33 BASED ON 3000 HRS. AND \$.08 PER KWH.

FIXTURE EFFICIENCY= 69.6%

CANDLEPOWER				
Angle	End	45	Cross	
0	1057	1057	1057	
5	1058	1056	1049	
10	1042	1049	1047	
15	1008	1031	1029	
20	957	1006	994	
25	888	1008	1012	
30	791	994	1220	
35	673	951	1464	
40	537	905	1506	
45	413	765	1245	
50	235	542	709	
55	121	324	341	
60	84	154	134	
65	66	70	77	
70	48	49	49	
75	29	30	31	
80	14	15	15	
85	3	5	5	

MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture*

- 80-50-20 Reflectances (Ceiling-Wall-Floor)
- LLF = 0.89 1760 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	-	78	47	34	-
2 Lamp HO	2	-	57	34	-	-
Opal	1	128	43	-	-	-

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 1760 LUMEN LAMPS

ANGLE	END	45°	CROSS
45	2006	3716	6047
55	725	1940	2042
65	536	569	626
75	385	398	411
85	118	197	197

TYPICAL V.C.P.'s

Room Size	Mounting Height			
	Lengthwise		Crosswise	
	8.5	10	8.5	10
30x30	88	88	86	84
40x40	89	88	87	86
60x30	91	90	89	87
60x60	90	89	89	87
100x100	92	91	91	89

COEFFICIENT OF UTILIZATION

pfc pcc pw	20			70			50		
	70	50	30	70	50	30	50	30	50
RCR									
0	82	82	82	81	81	81	77	77	77
1	78	75	72	76	72	70	70	68	68
2	71	67	64	69	66	63	64	60	60
3	67	60	56	65	59	55	57	54	54
4	61	55	50	59	54	48	52	47	47
5	56	48	44	56	48	44	46	42	42
6	53	45	39	52	44	39	42	39	39
7	48	40	35	47	40	34	39	34	34
8	46	38	32	45	36	32	35	32	32
9	42	34	28	41	34	28	33	28	28
10	40	32	27	40	30	27	30	26	26

LIGHT DISTRIBUTION

DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	847	24.1	34.6
0-40	1490	42.3	60.8
0-60	2336	66.4	95.4
0-90	2449	69.6	100.0

LLF = .89 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90
LLD = 0.95 @ 40% RATED LAMP LIFE BF = 1.00 ELECTRONIC BALLAST & T5HO LAMP (RELAMP AT 70% LAMP LIFE)

PHOTOMETRIC DATA

CATALOG #2SEP224HO-P-1/2-EB
TEST #24302 S/MH=1.9

LAMPS = F24T5HO
BALLAST = ELECTRONIC

INPUT WATTS = 55
BALLAST FACTOR = 1.00

LER = F-41

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = \$5.85 BASED ON 3000 HRS. AND \$.08 PER KWH.

FIXTURE EFFICIENCY= 63.9%

CANDLEPOWER				
Angle	End	45	Cross	
0	999	999	999	
5	1002	998	993	
10	986	992	992	
15	953	974	974	
20	902	948	942	
25	837	948	948	
30	741	938	1120	
35	623	901	1397	
40	488	851	1450	
45	371	726	1233	
50	191	506	718	
55	79	290	325	
60	45	122	105	
65	30	35	40	
70	18	18	19	
75	9	9	9	
80	4	4	3	
85	0	0	0	

MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture*

- 80-50-20 Reflectances (Ceiling-Wall-Floor)
- LLF = 0.89 1760 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	-	72	43	31	-
2 Lamp HO	2	-	53	32	-	-
Perf.	1	120	40	-	-	-

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 1760 LUMEN LAMPS

ANGLE	END	45°	CROSS
45	1802	3526	5989
55	473	1736	1946
65	244	284	325
75	119	119	119
85	0	0	0

TYPICAL V.C.P.'s

Room Size	Mounting Height			
	Lengthwise		Crosswise	
	8.5	10	8.5	10
30x30	96	94	94	90
40x40	98	96	96	94
60x30	98	97	96	94
60x60	98	98	98	96
100x100	99	99	99	98

COEFFICIENT OF UTILIZATION

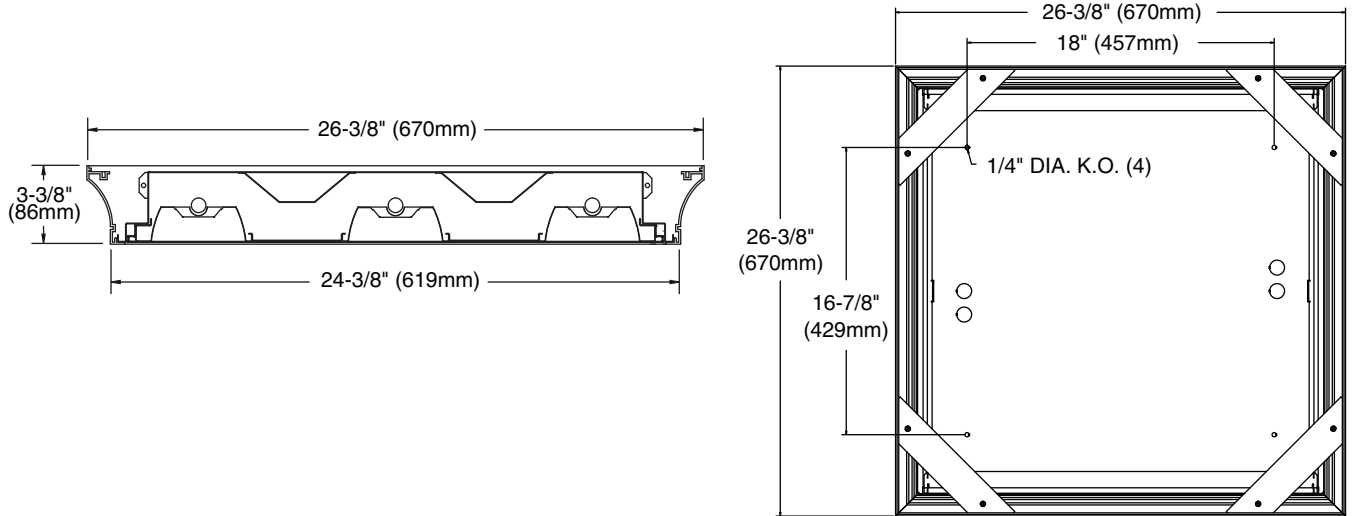
pfc pcc pw	20			70			50		
	70	50	30	70	50	30	50	30	50
RCR									
0	76	76	76	73	73	73	70	70	70
1	70	68	67	69	68	66	65	64	64
2	67	61	58	65	60	57	58	56	56
3	61	56	52	59	55	52	54	50	50
4	56	51	46	56	50	46	48	45	45
5	53	46	40	52	45	40	44	40	40
6	48	41	36	47	40	36	40	35	35
7	46	38	33	45	38	33	36	33	33
8	42	34	29	41	34	29	34	29	29
9	40	32	27	39	32	27	30	27	27
10	38	29	25	36	28	25	28	25	25

LIGHT DISTRIBUTION

DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	800	22.7	35.5
0-40	1405	39.9	62.4
0-60	2199	62.5	97.7
0-90	2251	63.9	100.0

LLF = .89 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90
LLD = 0.95 @ 40% RATED LAMP LIFE BF = 1.00 ELECTRONIC BALLAST & T5HO LAMP (RELAMP AT 70% LAMP LIFE)

DIMENSIONS - 3 LAMP



PHOTOMETRIC DATA

CATALOG # 2SEP224HO-S-1/2-EB
 TEST # 24304 S/MH=1.9

LAMPS = F24T5HO INPUT WATTS = 54
 BALLAST = ELECTRONIC BALLAST FACTOR = 1.00

LER = F-36

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = \$6.67 BASED ON 3000 HRS. AND \$.08 PER KWH.

FIXTURE EFFICIENCY = 54.8%

CANDLEPOWER				
Angle	End	45	Cross	
0	872	872	872	
5	879	870	865	
10	864	864	866	
15	833	849	851	
20	788	831	825	
25	729	841	851	
30	641	834	1057	
35	530	802	1320	
40	403	763	1366	
45	291	639	1124	
50	128	430	604	
55	25	228	248	
60	3	75	52	
65	2	6	12	
70	1	2	2	
75	1	1	1	
80	1	1	1	
85	0	0	1	

MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture*

- 80-50-20 Reflectances (Ceiling-Wall-Floor)
- LLF = 0.89 1760 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	-	62	37	-	-
2 Lamp HO	2	139	46	-	-	-
Solid	1	104	35	-	-	-

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 1760 LUMEN LAMPS				
ANGLE	END	45°	CROSS	
45	1413	3104	5459	
55	150	1365	1485	
65	16	49	98	
75	13	13	13	
85	0	0	39	

TYPICAL V.C.P.'s				
Room Size	Mounting Height		Crosswise	
	8.5	10	8.5	10
30x30	99	98	97	95
40x40	99	99	98	97
60x30	99	99	98	97
60x60	100	99	99	98
100x100	100	100	99	99

COEFFICIENT OF UTILIZATION

pfc pcc pw RCR	20		70		50	
	70	50	30	70	50	30
0	65	65	65	64	64	60
1	60	59	57	59	57	56
2	56	54	51	56	53	50
3	53	48	45	52	47	45
4	48	44	40	47	44	40
5	46	40	35	45	40	35
6	42	36	32	41	35	32
7	40	33	28	39	33	28
8	36	30	26	35	29	26
9	34	28	23	34	28	23
10	33	26	22	32	26	22

LIGHT DISTRIBUTION

DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	703	20.0	36.4
0-40	1252	35.6	64.9
0-60	1916	54.4	99.3
0-90	1929	54.8	100.0

LLF = .89 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90
 LLD = 0.95 @ 40% RATED LAMP LIFE BF = 1.00 ELECTRONIC BALLAST & T5HO LAMP (RELAMP AT 70% LAMP LIFE)

PHOTOMETRIC DATA

CATALOG # 2SEP324HO-0-1/21-EB
 TEST # 24301 S/MH=1.9

LAMPS = F24T5HO INPUT WATTS = 83
 BALLAST = ELECTRONIC BALLAST FACTOR = 1.00

LER = F-44

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = \$5.45 BASED ON 3000 HRS. AND \$.08 PER KWH.

FIXTURE EFFICIENCY = 69.1%

CANDLEPOWER				
Angle	End	45	Cross	
0	1590	1590	1590	
5	1581	1586	1589	
10	1558	1575	1589	
15	1508	1560	1578	
20	1432	1540	1583	
25	1338	1527	1659	
30	1189	1533	1916	
35	995	1509	2182	
40	767	1402	2219	
45	587	1162	1820	
50	327	809	1143	
55	125	484	574	
60	77	214	230	
65	59	67	100	
70	41	42	43	
75	26	27	27	
80	13	13	14	
85	4	5	5	

MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture*

- 80-50-20 Reflectances (Ceiling-Wall-Floor)
- LLF = 0.89 1760 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	-	117	70	50	35
3 Lamp HO	2	-	86	52	37	-
Opal	1	-	64	39	-	-

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 1760 LUMEN LAMPS				
ANGLE	END	45°	CROSS	
45	2851	5644	8840	
55	748	2898	3437	
65	479	544	813	
75	345	358	358	
85	158	197	197	

TYPICAL V.C.P.'s				
Room Size	Mounting Height		Crosswise	
	8.5	10	8.5	10
30x30	89	88	85	81
40x40	90	89	87	84
60x30	92	90	89	86
60x60	91	89	89	86
100x100	92	91	91	89

COEFFICIENT OF UTILIZATION

pfc pcc pw RCR	20		70		50	
	70	50	30	70	50	30
0	81	81	81	80	80	77
1	77	75	71	75	72	69
2	71	67	64	69	66	63
3	67	60	56	65	59	57
4	61	55	50	59	54	52
5	56	50	44	56	48	47
6	53	45	40	52	44	39
7	48	40	35	47	40	34
8	46	38	32	45	36	32
9	42	34	28	41	34	28
10	40	32	27	40	32	27

LIGHT DISTRIBUTION

DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	1297	24.6	35.5
0-40	2268	43.0	62.2
0-60	3533	66.9	96.8
0-90	3649	69.1	100.0

LLF = .89 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90
 LLD = 0.95 @ 40% RATED LAMP LIFE BF = 1.00 ELECTRONIC BALLAST & T5HO LAMP (RELAMP AT 70% LAMP LIFE)

PHOTOMETRIC DATA

CATALOG #2SEP324HO-P-1/21-EB
TEST #24298 S/MH=1.9

LAMPS = F24T5HO
BALLAST = ELECTRONIC

INPUT WATTS = 83
BALLAST FACTOR = 1.00

LER = F-42

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = \$5.71 BASED ON 3000 HRS. AND \$.08 PER KWH.

FIXTURE EFFICIENCY= 66.1%

CANDLEPOWER				
Angle	End	45	Cross	
0	1550	1550	1550	
5	1539	1547	1553	
10	1514	1538	1551	
15	1464	1520	1544	
20	1390	1497	1544	
25	1292	1481	1603	
30	1145	1486	1858	
35	950	1461	2141	
40	733	1369	2200	
45	541	1141	1819	
50	293	790	1125	
55	96	452	558	
60	42	186	203	
65	29	38	72	
70	18	18	19	
75	10	10	11	
80	4	4	4	
85	1	1	1	

MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture*

- 80-50-20 Reflectances (Ceiling-Wall-Floor)
- LLF = 0.89 1760 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	-	112	67	48	34
3 Lamp HO	2	-	83	50	35	-
Perf.	1	-	62	37	-	-

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 1760 LUMEN LAMPS

ANGLE	END	45°	CROSS
45	2628	5542	8835
55	575	2706	3341
65	236	309	585
75	133	133	146
85	39	39	39

TYPICAL V.C.P.'s

Room Size	Mounting Height			
	Lengthwise		Crosswise	
	8.5	10	8.5	10
30x30	95	93	91	86
40x40	97	95	95	90
60x30	97	96	95	91
60x60	98	97	96	93
100x100	99	98	98	96

COEFFICIENT OF UTILIZATION

ptc pcc pw RCR	20			70			50		
	70	50	30	70	50	30	70	50	30
0	79	79	79	77	77	77	72	72	72
1	73	71	69	71	69	68	67	66	66
2	68	65	60	67	64	59	60	58	58
3	64	57	54	61	56	53	56	52	52
4	58	53	47	57	52	47	50	46	46
5	55	47	42	54	46	41	46	41	41
6	51	44	38	50	42	38	41	38	38
7	47	40	34	46	39	34	38	34	34
8	44	35	30	42	35	30	34	30	30
9	41	33	28	40	33	28	32	28	28
10	39	30	26	38	30	26	29	26	26

LIGHT DISTRIBUTION

DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	1259	23.9	36.1
0-40	2204	41.7	63.2
0-60	3426	64.9	98.2
0-90	3490	66.1	100.0

LLF = .89 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90
LLD = 0.95 @ 40% RATED LAMP LIFE BF = 1.00 ELECTRONIC BALLAST & TSHO LAMP (RELAMP AT 70% LAMP LIFE)

PHOTOMETRIC DATA

CATALOG #2SEP324HO-S-1/21-EB
TEST #24300 S/MH=1.9

LAMPS = F24T5HO
BALLAST = ELECTRONIC

INPUT WATTS = 82
BALLAST FACTOR = 1.00

LER = F-39

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = \$6.15 BASED ON 3000 HRS. AND \$.08 PER KWH.

FIXTURE EFFICIENCY= 60.0%

CANDLEPOWER				
Angle	End	45	Cross	
0	1405	1405	1405	
5	1398	1405	1402	
10	1376	1397	1403	
15	1327	1383	1401	
20	1259	1368	1409	
25	1169	1365	1495	
30	1036	1382	1765	
35	856	1371	2044	
40	645	1284	2083	
45	468	1062	1678	
50	227	725	1026	
55	48	401	471	
60	7	146	154	
65	4	14	43	
70	2	2	4	
75	1	1	1	
80	0	0	0	
85	0	0	0	

MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture*

- 80-50-20 Reflectances (Ceiling-Wall-Floor)
- LLF = 0.89 1760 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	-	102	61	44	31
3 Lamp HO	2	-	76	45	32	-
Solid	1	-	57	34	-	-

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 1760 LUMEN LAMPS

ANGLE	END	45°	CROSS
45	2273	5158	8150
55	287	2401	2820
65	33	114	349
75	13	13	13
85	0	0	0

TYPICAL V.C.P.'s

Room Size	Mounting Height			
	Lengthwise		Crosswise	
	8.5	10	8.5	10
30x30	98	97	95	91
40x40	99	98	97	94
60x30	99	98	97	94
60x60	99	99	98	96
100x100	100	99	99	98

COEFFICIENT OF UTILIZATION

ptc pcc pw RCR	20			70			50		
	70	50	30	70	50	30	70	50	30
0	70	70	70	69	69	69	67	67	67
1	67	65	63	66	64	61	60	59	59
2	63	58	56	60	57	55	56	54	54
3	57	53	50	56	52	48	51	47	47
4	54	47	44	53	47	44	46	42	42
5	50	44	39	48	42	39	41	38	38
6	46	40	34	46	39	34	38	34	34
7	42	35	32	42	35	32	34	30	30
8	40	33	28	40	33	28	32	28	28
9	38	30	26	36	29	26	29	26	26
10	35	28	23	34	28	23	27	23	23

LIGHT DISTRIBUTION

DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	1153	21.8	36.4
0-40	2040	38.6	64.4
0-60	3142	59.5	99.1
0-90	3170	60.0	100.0

LLF = .89 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90
LLD = 0.95 @ 40% RATED LAMP LIFE BF = 1.00 ELECTRONIC BALLAST & TSHO LAMP (RELAMP AT 70% LAMP LIFE)