



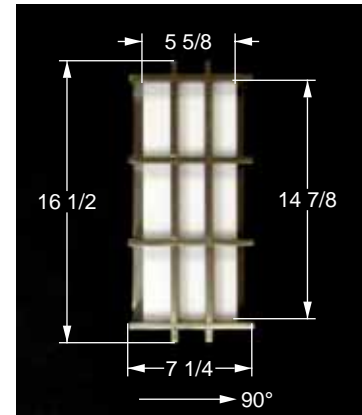
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ISSUE DATE: 11/08/13
PREPARED FOR: OXYGEN LIGHTING
CATALOG NUMBER: 2-710-224

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LUMINAIRE: FABRICATED WHITE PAINTED METAL MOUNTING PLATE/REFLECTOR, TRANSLUCENT WHITE FROSTED PLASTIC DIFFUSER WITH FROSTED TRANSLUCENT WHITE PLASTIC TOP AND BOTTOM END CAPS, FABRICATED SEMI-DIFFUSE METAL FACEPLATE WITH 4 HORIZONTAL BARS AND 2 VERTICAL BARS. BALLAST IS EXPOSED AND CENTERED IN OPTICAL COMPARTMENT. DIFFUSER FROSTED SIDE OUT.

LAMPS: TWO 13-WATT DOUBLE TWIN TUBE COMPACT FLUORESCENTS, SYLVANIA CF13DD/E/827, ONE TILTED 6-DEGREES FROM VERTICAL BASE-UP POSITION, ONE TILTED 6-DEGREES FROM VERTICAL BASE-DOWN POSITION.

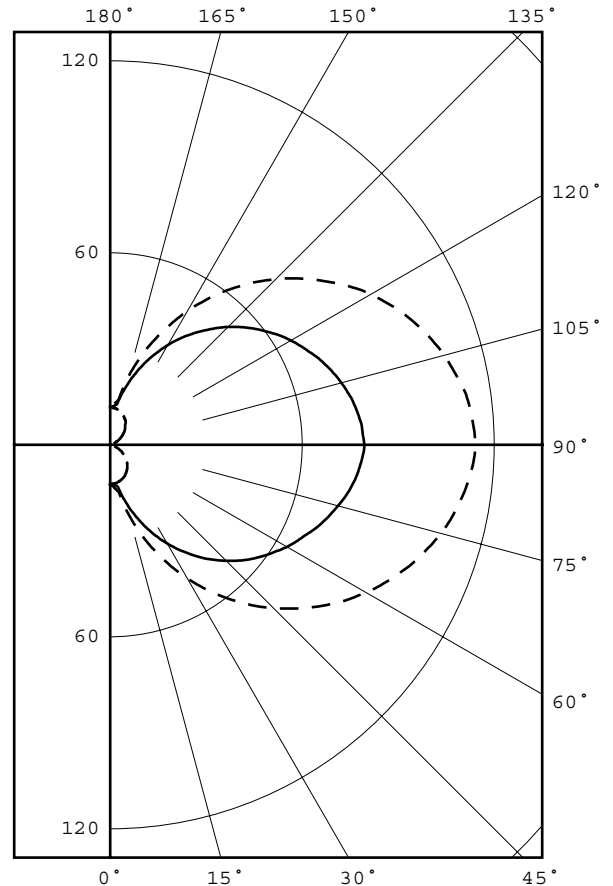
BALLAST: FULHAM RHA-UNV-213-C
TOTAL INPUT WATTS = 27.5 AT 120.0 VOLTS
TOTAL REFLECTANCE OF PAINT = 72.5 %
MOUNTING: WALL
REPORT IS BASED ON 900 LUMENS PER LAMP.



CANDELA DISTRIBUTION

	0.0	45.0	90.0	135.0	180.0
0	12	12	12	12	12
5	13	13	12	12	12
15	23	17	18	14	12
25	40	33	30	19	11
35	57	49	41	25	9
45	72	64	51	30	7
55	86	78	60	34	5
65	98	90	67	38	3
75	107	100	74	41	0
85	113	107	78	43	0
90	114	109	79	44	0
95	113	108	79	43	0
105	108	101	75	41	0
115	100	91	69	38	2
125	88	79	61	34	4
135	73	65	52	30	6
145	57	49	42	25	8
155	39	33	30	19	10
165	22	16	19	13	11
175	13	12	12	12	12
180	12	12	12	12	12

FLUX



ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT
0- 30	19	1.0	2.8
0- 40	42	2.3	6.2
0- 60	125	7.0	18.7
0- 90	334	18.5	49.8
90-120	211	11.7	31.4
90-130	260	14.4	38.7
90-150	319	17.7	47.5
90-180	337	18.7	50.2
0-180	670	37.2	100.0

TOTAL LUMINAIRE EFFICIENCY = 37.2 %

CIE TYPE - GENERAL DIFFUSE
PLANE : 0-DEG 90-DEG 180-DEG
SPACING CRITERIA : 4.64 3.92 1.20

Checked B. HYRE
Approved R. BEATTIE
Lighting Engineer



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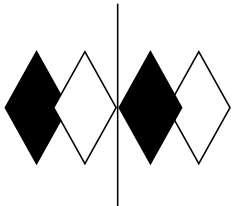
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LUMINANCE DATA IN CANDELA/SQ M			
ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 90-DEG	AVERAGE 180-DEG
45	1433.	974.	201.
55	1554.	1042.	127.
65	1660.	1114.	66.
75	1768.	1169.	7.
85	1817.	1223.	0.



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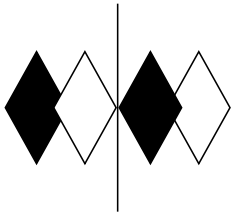
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CANDELA DISTRIBUTION
 LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0
0.0	12	12	12	12	12	12	12	12	12
5.0	13	13	13	13	12	12	12	12	12
10.0	15	15	14	14	13	13	13	12	12
15.0	23	21	17	18	18	17	14	12	12
20.0	31	28	25	24	24	22	17	12	11
25.0	40	36	33	30	30	27	19	12	11
30.0	48	45	41	36	36	31	22	12	10
35.0	57	53	49	43	41	36	25	12	9
40.0	65	62	56	49	46	41	28	12	8
45.0	72	70	64	55	51	45	30	12	7
50.0	79	77	71	61	56	48	32	12	6
55.0	86	85	78	66	60	52	34	12	5
60.0	92	92	84	70	64	55	36	12	4
65.0	98	98	90	75	67	58	38	11	3
70.0	103	103	95	79	71	61	39	11	1
75.0	107	108	100	83	74	63	41	11	0
80.0	110	112	104	86	76	65	42	11	0
85.0	113	116	107	89	78	67	43	12	0
90.0	114	117	109	90	79	68	44	12	0
95.0	113	116	108	90	79	67	43	12	0
100.0	111	114	105	88	77	66	43	11	0
105.0	108	110	101	85	75	64	41	11	0
110.0	104	105	96	81	72	62	40	11	1
115.0	100	100	91	77	69	59	38	11	2
120.0	94	94	86	72	65	56	36	11	3
125.0	88	86	79	67	61	53	34	11	4
130.0	81	79	72	62	57	49	32	11	5
135.0	73	70	65	56	52	45	30	11	6
140.0	65	62	57	50	47	41	27	11	7
145.0	57	53	49	43	42	36	25	11	8
150.0	48	44	41	37	36	32	22	11	9
155.0	39	35	33	30	30	27	19	11	10
160.0	31	27	25	24	24	22	16	11	11
165.0	22	20	16	18	19	17	13	11	11
170.0	14	14	14	13	13	13	12	12	11
175.0	13	13	12	12	12	12	12	12	12
180.0	12	12	12	12	12	12	12	12	12



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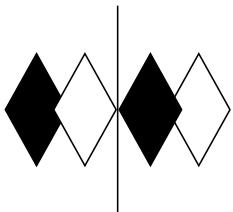
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5-DEGREE ZONAL LUMEN SUMMARY

0- 5	0
5- 10	1
10- 15	2
15- 20	3
20- 25	5
25- 30	7
30- 35	10
35- 40	13
40- 45	16
45- 50	19
50- 55	23
55- 60	26
60- 65	29
65- 70	32
70- 75	34
75- 80	36
80- 85	38
85- 90	39
90- 95	39
95-100	38
100-105	37
105-110	35
110-115	32
115-120	29
120-125	26
125-130	23
130-135	20
135-140	16
140-145	13
145-150	10
150-155	7
155-160	5
160-165	3
165-170	2
170-175	1
175-180	0

10-DEGREE ZONAL LUMEN SUMMARY

0- 10	1
0- 20	6
0- 30	19
0- 40	42
0- 50	77
0- 60	125
0- 70	186
0- 80	256
0- 90	334
0-100	411
0-110	483
0-120	544
0-130	593
0-140	629
0-150	652
0-160	664
0-170	669
0-180	670



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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50			30			10			0	
	RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	40	40	40	40	37	37	37	37	31	31	31	26	26	26	21	21	21	19	
1	34	32	29	27	31	29	27	25	24	22	21	19	18	17	15	14	13	11	
2	30	26	23	21	27	24	21	19	20	18	16	16	14	13	12	11	10	8	
3	27	23	19	16	25	21	17	15	17	14	12	13	11	10	10	8	7	6	
4	25	20	16	13	22	18	15	12	14	12	10	11	9	8	9	7	6	4	
5	22	17	14	11	20	16	12	10	13	10	8	10	8	6	7	6	5	3	
6	20	15	12	9	18	14	11	8	11	9	7	9	7	5	7	5	4	3	
7	19	14	10	8	17	12	9	7	10	8	6	8	6	4	6	4	3	2	
8	17	12	9	7	16	11	8	6	9	7	5	7	5	4	5	4	3	2	
9	16	11	8	6	15	10	7	5	8	6	4	7	5	3	5	3	2	2	
10	15	10	7	5	14	9	6	5	8	5	4	6	4	3	5	3	2	1	

ALL CANDELA, LUMENS, LUMINANCE, COEFFICIENT OF UTILIZATION AND VCP VALUES IN THIS REPORT ARE BASED ON RELATIVE PHOTOMETRY WHICH ASSUMES A BALLAST FACTOR OF 1.000. ANY CALCULATIONS PREPARED FROM THESE DATA SHOULD INCLUDE AN APPROPRIATE BALLAST FACTOR.

NOTE: THE ZONAL CAVITY CALCULATION TECHNIQUE IS ACCURATE WHEN LUMINAIRES WITH SYMMETRIC CANDELA DISTRIBUTIONS ARE EMPLOYED AND WHEN THE LUMINAIRES ARE LOCATED SYMMETRICALLY THROUGHOUT THE ROOM. THIS UNIT HAS SPECIAL CHARACTERISTICS AND THEREFORE THESE COEFFICIENTS SHOULD BE USED WITH CAUTION.