

REPORT NUMBER: ITL82259
ISSUE DATE: 08/11/14
PREPARED FOR: OXYGEN LIGHTING
CATALOG NUMBER: 3-513-XX

PAGE: 1 OF 6
REVISED: 04/04/16

LUMINAIRE: FABRICATED SEMI-SPECULAR METAL HOUSING, FABRICATED WHITE PAINTED METAL REFLECTOR AND DRIVER HOUSING, 1 WHITE CIRCUIT BOARD WITH 36 LEDs, FROSTED TRANSLUCENT WHITE ACRYLIC DIFFUSER. DIFFUSER FROSTED SIDE OUT. DRIVER IS EXPOSED AND CENTERED AT THE BOTTOM OF THE OPTICAL COMPARTMENT.

LAMPS: THIRTY-SIX WHITE MULTI-CHIP LIGHT EMITTING DIODES (LEDs), AIMED AT THE HORIZON.

TOTAL INPUT WATTS = 12.1 AT 120.0 VOLTS

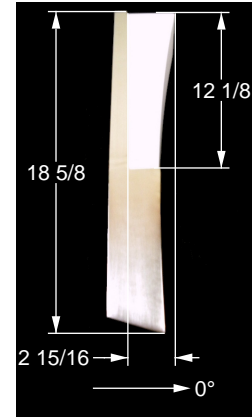
MOUNTING: WALL

LED DRIVER: ESPEN VEL12030MVH-1

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120VAC, 60Hz) TO THE DRIVER. ACRYLIC MATERIAL INFORMATION PROVIDED BY CLIENT.

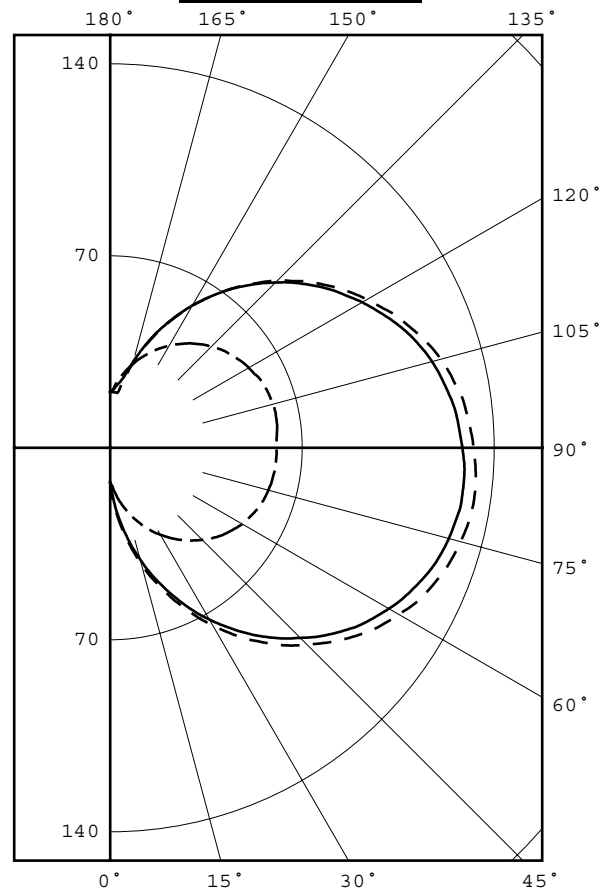
TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 20.0 FEET



CANDELA DISTRIBUTION

	0.0	45.0	90.0	135.0	180.0	FLUX
0	13	13	13	13	13	1
5	23	22	16	6	0	7
15	44	42	24	8	0	17
25	65	63	33	14	0	29
35	85	82	41	19	0	44
45	101	98	48	24	0	58
55	116	112	53	29	0	70
65	127	122	57	33	0	78
75	132	128	60	35	0	82
85	134	130	61	37	0	81
90	133	128	61	37	0	77
95	131	127	61	37	0	68
105	125	122	61	39	1	57
115	115	112	60	39	2	44
125	102	100	57	38	9	30
135	86	85	52	37	12	18
145	69	69	46	34	15	8
155	50	51	39	31	17	2
165	32	33	32	27	19	
175	20	22	23	22	20	
180	20	20	20	20	20	



LEGEND:
0-deg - - - - -
45-deg = = = = =
90-deg - - - - -

ZONAL ZONE	LUMEN LUMENS	SUMMARY LUMENS	%FIXT
0- 30		25	3.2
0- 40		54	7.0
0- 60		156	20.1
0- 90		386	50.0
90-120		227	29.3
90-130		284	36.7
90-150		358	46.3
90-180		387	50.0
0-180		773	100.0

EFFICACY = 63.9 lm/W
CIE TYPE - GENERAL DIFFUSE

Checked M KLOPF
Approved R BEATTIE
Lighting Engineer



itl boulder

THE LIGHT CENTER OF THE INDUSTRY SINCE 1955



INDEPENDENT TESTING LABORATORIES, INC.
4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA

PHONE: (303) 442-1255 • FAX: (970) 535-3114 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL82259
ISSUE DATE: 08/11/14
PREPARED FOR: OXYGEN LIGHTING

PAGE: 2 OF 6
REVISED: 04/04/16

LUMINANCE DATA IN CANDELA/SQ M			
ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
45	4881.	4255.	3574.
55	4999.	4333.	3649.
65	5067.	4360.	3716.
75	5101.	4392.	3792.
85	5121.	4402.	3865.



INDEPENDENT TESTING LABORATORIES, INC.
4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA

PHONE: (303) 442-1255 • FAX: (970) 535-3114 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL82259
ISSUE DATE: 08/11/14
PREPARED FOR: OXYGEN LIGHTING

PAGE: 3 OF 6
REVISED: 04/04/16

CANDELA DISTRIBUTION
LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0
0.0	13	13	13	13	13	13	13	13	13
5.0	23	23	22	19	16	11	6	2	0
10.0	33	34	32	27	20	11	5	2	0
15.0	44	45	42	35	24	13	8	3	0
20.0	54	56	53	43	28	16	11	5	0
25.0	65	67	63	50	33	19	14	6	0
30.0	75	78	72	57	37	24	16	7	0
35.0	85	89	82	64	41	28	19	9	0
40.0	94	98	90	71	44	31	22	10	0
45.0	101	107	98	77	48	35	24	11	0
50.0	109	115	106	82	51	38	27	12	0
55.0	116	122	112	87	53	42	29	13	0
60.0	122	128	117	91	56	44	31	14	0
65.0	127	134	122	94	57	47	33	14	0
70.0	130	137	126	97	59	49	34	15	0
75.0	132	140	128	98	60	51	35	15	0
80.0	134	143	129	99	60	52	36	16	0
85.0	134	142	130	100	61	53	37	16	0
90.0	133	141	128	99	61	53	37	16	0
95.0	131	139	127	97	61	54	37	16	0
100.0	128	137	125	96	62	54	38	17	0
105.0	125	133	122	93	61	54	39	18	1
110.0	120	128	117	90	61	54	39	19	1
115.0	115	122	112	87	60	53	39	20	2
120.0	108	115	106	82	58	52	39	21	8
125.0	102	108	100	78	57	51	38	22	9
130.0	94	100	93	72	55	49	38	23	11
135.0	86	92	85	67	52	47	37	23	12
140.0	78	83	77	61	49	45	36	24	14
145.0	69	74	69	55	46	43	34	24	15
150.0	60	64	60	48	43	40	33	24	16
155.0	50	54	51	41	39	37	31	24	17
160.0	41	44	42	36	36	33	29	23	18
165.0	32	34	33	31	32	30	27	23	19
170.0	23	24	25	27	27	27	24	22	20
175.0	20	21	22	23	23	23	22	21	20
180.0	20	20	20	20	20	20	20	20	20



INDEPENDENT TESTING LABORATORIES, INC.
 4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA

PHONE: (303) 442-1255 • FAX: (970) 535-3114 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL82259
 ISSUE DATE: 08/11/14
 PREPARED FOR: OXYGEN LIGHTING

PAGE: 4 OF 6
 REVISED: 04/04/16

5-DEGREE
 ZONAL LUMEN SUMMARY

0- 5	0
5- 10	1
10- 15	3
15- 20	4
20- 25	7
25- 30	10
30- 35	13
35- 40	16
40- 45	20
45- 50	24
50- 55	27
55- 60	31
60- 65	34
65- 70	36
70- 75	38
75- 80	40
80- 85	41
85- 90	41
90- 95	41
95-100	40
100-105	39
105-110	38
110-115	35
115-120	33
120-125	30
125-130	27
130-135	24
135-140	20
140-145	17
145-150	14
150-155	10
155-160	8
160-165	5
165-170	3
170-175	2
175-180	1

10-DEGREE
 ZONAL LUMEN SUMMARY

0- 10	1
0- 20	8
0- 30	25
0- 40	54
0- 50	98
0- 60	156
0- 70	226
0- 80	304
0- 90	386
0-100	468
0-110	545
0-120	613
0-130	670
0-140	714
0-150	744
0-160	762
0-170	771
0-180	773



INDEPENDENT TESTING LABORATORIES, INC.
4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA

PHONE: (303) 442-1255 • FAX: (970) 535-3114 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL82259

PAGE: 5 OF 6

ISSUE DATE: 08/11/14

REVISED: 04/04/16

PREPARED FOR: OXYGEN LIGHTING

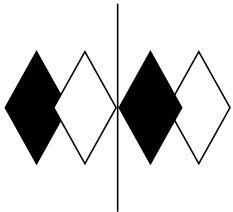
COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50	
1	92	86	80	74	84	78	73	68	65	61	57	52	49	46	41	39	36	31	
2	82	72	63	56	74	66	58	52	54	48	43	43	39	35	33	30	27	22	
3	73	61	52	44	67	56	48	41	46	39	34	36	31	27	27	24	20	16	
4	66	53	43	36	60	48	40	33	40	33	27	31	26	22	24	19	16	12	
5	60	47	37	30	55	42	34	27	35	28	22	27	22	18	21	16	13	10	
6	55	41	32	25	50	38	29	23	31	24	19	24	19	15	18	14	11	8	
7	51	37	28	21	46	34	25	20	28	21	16	22	17	13	16	12	9	6	
8	47	33	24	18	43	30	22	17	25	18	14	20	15	11	15	11	8	5	
9	44	30	22	16	40	27	20	15	23	16	12	18	13	9	14	10	7	5	
10	41	27	19	14	37	25	18	13	21	15	11	16	12	8	13	9	6	4	

ALL CANDELA, LUMENS, LUMINANCE, AND VCP VALUES IN THIS REPORT ARE BASED ON ABSOLUTE PHOTOMETRY. THE COEFFICIENT OF UTILIZATION VALUES ARE BASED ON THE TOTAL ABSOLUTE LUMEN OUTPUT OF THIS TEST SAMPLE.

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.



itl boulder
THE LIGHT CENTER OF THE INDUSTRY SINCE 1955



INDEPENDENT TESTING LABORATORIES, INC.
4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA

PHONE: (303) 442-1255 • FAX: (970) 535-3114 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL82259
ISSUE DATE: 08/11/14
PREPARED FOR: OXYGEN LIGHTING

PAGE: 6 OF 6
REVISED: 04/04/16

ADDRESS: 201 RAILHEAD ROAD
FORT WORTH, TX 76106

THIS ITL REPORT WITH THE USE OF THE NVLAP LOGO SHALL NOT BE USED BY THE CLIENT TO CLAIM PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NVLAP, NIST, OR ANY AGENCY OF THE FEDERAL GOVERNMENT.