



itl boulder

THE LIGHT CENTER OF THE INDUSTRY SINCE 1955

INDEPENDENT TESTING LABORATORIES, INC.
3386 LONGHORN ROAD, BOULDER, CO 80302 USA

PHONE: (303)442-1255 • FAX: (303)449-5274 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL62872

DATE: 08/06/09

PREPARED FOR: NEXXUS LIGHTING, INC.

CATALOG NUMBER: AE26R16WW25

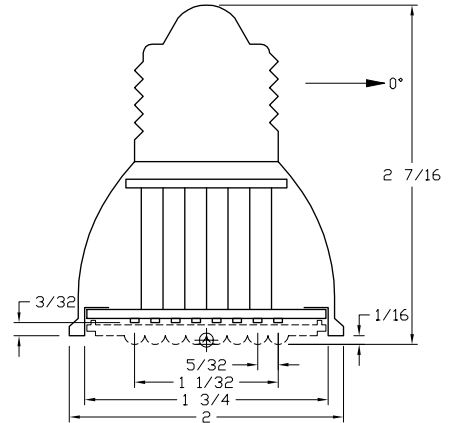
LAMP: ONE PAR-16 STYLE MEDIUM BASE LED LAMP WITH INTEGRAL LED DRIVER, MOLDED FINNED WHITE PLASTIC BODY, ONE WHITE CIRCUIT BOARD WITH 40 VERTICAL BASE-UP WHITE LIGHT EMITTING DIODES (LEDS), MULTIPLE METAL POSTS BETWEEN UPPER AND LOWER HOUSING, FROSTED FLAT PLASTIC LENS WITH ONE CLEAR HEMISPHERICAL OPTIC BELOW EACH LED, VERTICAL BASE-UP POSITION.

TOTAL INPUT WATTS = 2.62 AT 120.0 VOLTS AC

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120VAC, 60Hz) TO THE LAMP.

TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 25.25 FEET



CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	FLUX
0	272	272	272	272	272	
5	248	249	251	253	253	22
15	109	114	127	140	144	34
25	41	43	49	56	59	23
35	31	30	31	33	34	20
45	28	28	29	29	29	21
55	22	22	23	23	21	19
65	13	14	13	13	12	13
75	7	7	6	6	6	6
85	2	2	3	3	3	2
90	1	1	1	1	1	

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%FIXT
0- 30	81	48.8
0- 40	101	61.1
0- 60	142	86.2
0- 90	165	100.0
90-180	0	0.0
0-180	165	100.0

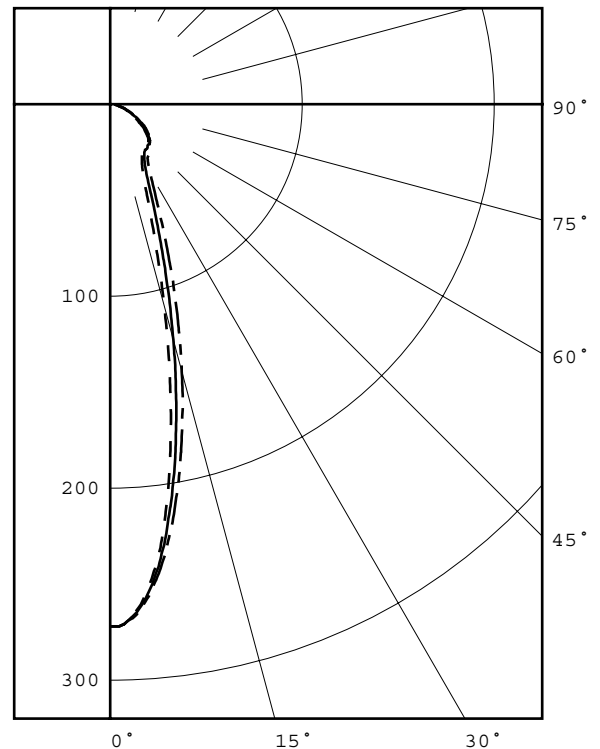
EFFICACY = 63.0 Lm/W

CIE TYPE - DIRECT

PLANE : 0-DEG 90-DEG
 SPACING CRITERIA : 0.4 0.5
 BEAM ANGLE (50%) : 26.0 X 31.5 DEGREES
 FIELD ANGLE (10%) : 94.0 X 97.0 DEGREES
 LUMINOUS DIAMETER: 1.750

LUMINANCE DATA IN CANDELA/SQ M

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
45	25518.	26429.	26429.
55	24718.	25841.	23594.
65	19823.	19823.	18298.
75	17429.	14939.	14939.
85	14788.	22182.	22182.



LEGEND:

0-deg: - - - - -
 45-deg: _____
 90-deg: - . - . - .

Checked *N. WHITE*

Approved *R. BEATTIE*



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CANDELA DISTRIBUTION
 LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0
0.0	272	272	272	272	272
0.5	272	272	272	272	272
1.0	272	272	272	272	272
1.5	271	271	271	271	271
2.0	269	269	269	269	269
2.5	267	267	267	268	268
3.0	264	265	265	266	266
3.5	261	262	262	263	263
4.0	257	258	259	260	260
4.5	253	254	255	256	257
5.0	248	249	251	253	253
5.5	243	244	246	249	249
6.0	238	239	242	244	245
6.5	232	233	236	239	240
7.0	225	227	231	234	236
7.5	218	220	225	229	230
8.0	211	214	218	223	225
8.5	204	206	212	218	220
9.0	196	199	206	212	214
9.5	189	192	199	206	208
10.0	181	185	193	200	203
10.5	173	177	186	194	197
11.0	166	170	179	188	191
11.5	158	162	172	182	185
12.0	150	155	166	176	179
12.5	143	148	159	170	173
13.0	136	141	152	163	167
13.5	129	134	146	158	162
14.0	122	127	140	152	156
14.5	115	120	133	146	150
15.0	109	114	127	140	144
15.5	103	108	121	134	139
16.0	97	102	115	128	133
16.5	92	97	110	123	127
17.0	86	91	105	117	122
17.5	81	86	99	112	117
18.0	77	82	94	107	112
18.5	73	77	90	102	107
19.0	69	73	85	98	102
19.5	65	69	81	93	98
20.0	62	66	77	89	93
22.5	49	52	61	70	74
25.0	41	43	49	56	59
27.5	36	37	41	46	49
30.0	33	33	36	40	42
32.5	31	32	33	36	37
35.0	31	30	31	33	34
37.5	30	30	30	32	33
40.0	29	29	30	31	31
42.5	29	28	29	30	30
45.0	28	28	29	29	29
47.5	27	26	28	28	28
50.0	25	25	26	27	26
52.5	23	23	25	25	23
55.0	22	22	23	23	21
57.5	20	20	21	20	18
60.0	18	18	18	18	16
62.5	15	16	16	15	14
65.0	13	14	13	13	12
67.5	12	12	11	11	10
70.0	10	10	9	9	9
72.5	8	8	8	8	8
75.0	7	7	6	6	6
77.5	5	5	5	5	5
80.0	4	4	4	4	4



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CANDELA DISTRIBUTION
LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0
82.5	3	3	3	3	3
85.0	2	2	3	3	3
87.5	2	2	2	2	2
90.0	1	1	1	1	1



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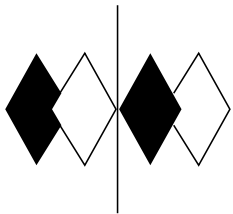
PREPARED FOR: NEXXUS LIGHTING, INC.

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	120	120	120	120	117	117	117	117	112	112	112	107	107	107	103	103	103	101
1	111	107	104	100	109	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	101	95	89	85	91	87	83	88	84	81	85	82	79	77
3	96	87	81	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69
4	90	80	72	67	88	79	72	66	76	70	66	74	69	65	72	68	64	62
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57
6	79	68	61	55	78	67	60	55	66	59	55	64	58	54	63	58	54	52
7	75	64	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48
8	71	60	52	47	70	59	52	47	58	51	47	57	51	47	55	50	47	45
9	67	56	49	44	66	56	49	44	55	48	44	54	48	44	53	48	44	42
10	64	53	46	42	63	53	46	42	52	46	42	51	45	41	50	45	41	40

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 LUMINAIRE SAMPLE.



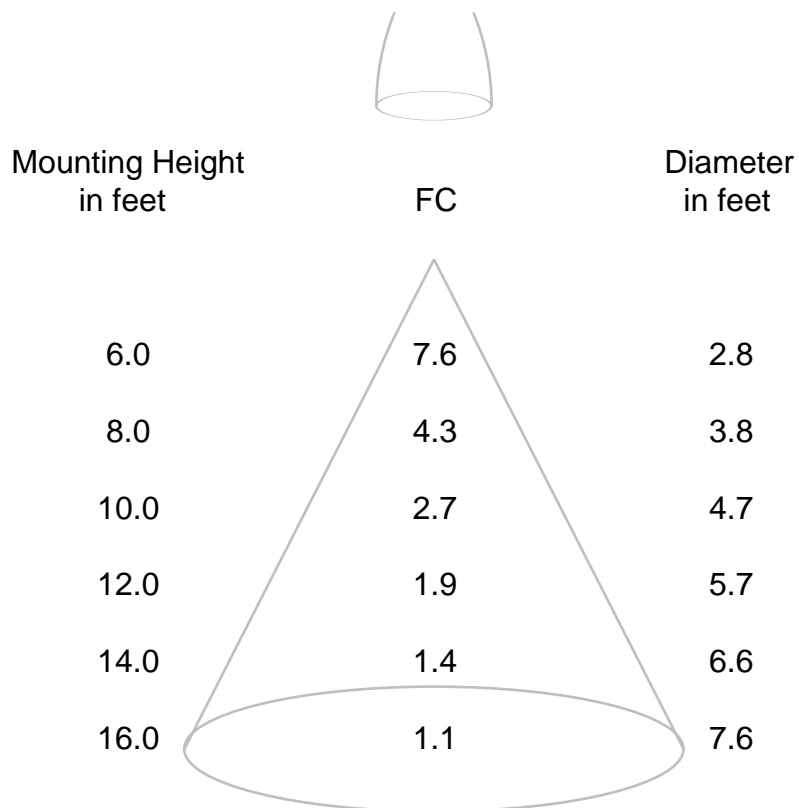
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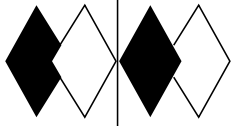
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CONE OF LIGHT DIAGRAM

(diameter shown is where fc value is half the fc at nadir)



Note: The candela values used to generate this diagram were obtained by averaging the photometric data into a single plane.



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ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINATION

Values based on 5 foot mounting height

REPORT NO.: ITL62872A

PREPARED FOR: NEXXUS LIGHTING, INC.

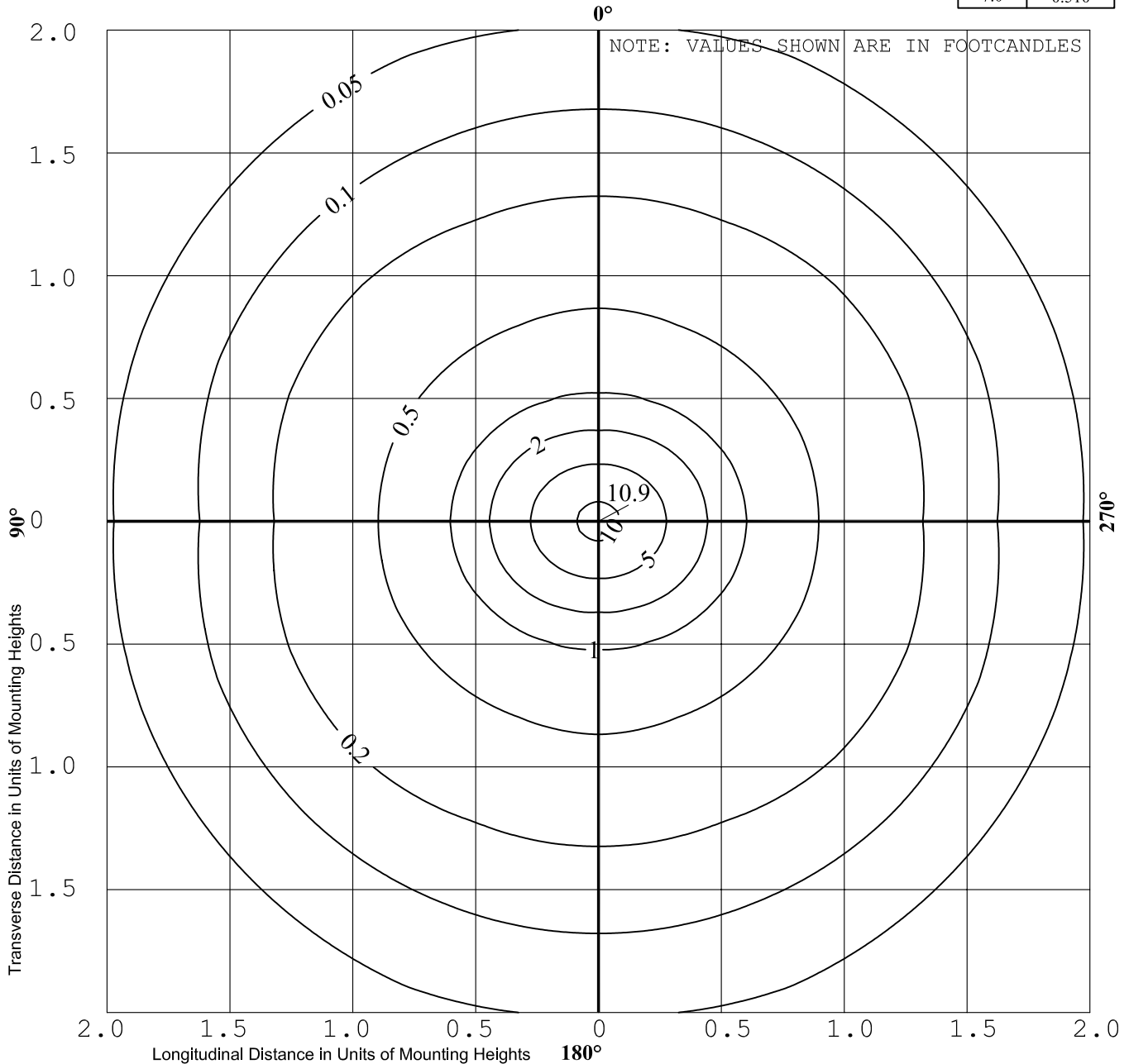
CATALOG NUMBER: AE26R16WW25

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Mounting Height Correction Factors	
mtg hgt	corr factor
3.0'	2.778
4.0'	1.563
5.0'	1.000
6.0'	0.694
7.0'	0.510

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120VAC, 60Hz) TO THE LAMP.

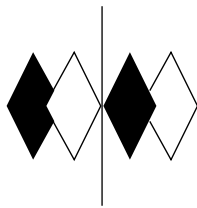


DIRECT CONTRIBUTION ONLY, NO INTERREFLECTED COMPONENTS (0% REFLECTANCES)

This lighting pattern represents illumination levels calculated from laboratory data taken under controlled condition in accordance with Illuminating Engineering Society approved methods. Actual performance of the manufacturer's luminaire may vary due to conditions including, but not limited to variation in line voltage, tolerance in lamps, and other variable field conditions.

ITL makes every effort to supply our customers with application work that is free from errors and without defects. However, since it is humanly impossible to be without error 100% of the time, the customer agrees to not hold ITL liable (for any error or defect) for more than the purchase price of these services.

THIS REPORT IS BASED ON PUBLISHED INDUSTRY PROCEDURES. FIELD PERFORMANCE MAY DIFFER FROM LABORATORY PERFORMANCE.



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REPORT NUMBER: ITL62883 Page 1 of 1
DATE: 8/07/09
PREPARED FOR: NEXXUS LIGHTING, INC.

CATALOG NUMBER: AE26R16WW25

LAMP: ONE PAR-16 STYLE MEDIUM BASE LED LAMP WITH INTEGRAL LED DRIVER, MOLDED FINNED WHITE PLASTIC BODY, ONE WHITE CIRCUIT BOARD WITH 40 VERTICAL BASE-UP WHITE LIGHT EMITTING DIODES (LEDS), MULTIPLE METAL POSTS BETWEEN UPPER AND LOWER HOUSING, FROSTED FLAT PLASTIC LENS WITH ONE CLEAR HEMISPHERICAL OPTIC BELOW EACH LED, VERTICAL BASE-UP POSITION.

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120VAC, 60Hz) TO THE LAMP.

INSTRUMENTATION: Kikusui PCR500L AC Power Source
Yokogawa WT210 Digital Power Meter
Optronics OL770 Spectroradiometer
ITL 1.5 Meter Diameter Integrating Sphere

OBJECT OF TEST: Measure the Correlated Color Temperature (CCT), Color Rendering Index (CRI), Chromaticity Coordinates (x,y), ANSI C78.377 Duv, and input electrical parameters.

PROCEDURE: The lamp was provided by customer and the LEDs had an unknown number of burn hours. The lamp was mounted inside the integrating sphere with the lamp in a base up position (LEDS facing down). The lamp was allowed to stabilize at 120 VAC input. After stabilization occurred, CCT, CRI, x/y chromaticity coordinates, ANSI C78.377 Duv, and input electrical data were measured with the lamp operating in the integrating sphere. In order to measure the mean performance, twenty data sets were recorded and averaged within the OL770. Readings were taken with the lamp operating at 120 VAC input in a 25 +/-1 degree Celsius free air ambient and in accordance with IESNA LM-79-08. All data are traceable to the National Institute of Standards and Technology.

RESULTS:

SPECTRORADIOMETRIC	
Observer	CIE 1931 2 degree
Correlated Color Temp CCT (K)	2995
Chromaticity Ordinate x	0.4395
Chromaticity Ordinate y	0.4087
Color Rendering Index (CRI)	75
ANSI C78.377-2008 Duv	0.002
ELECTRICAL	
Input Voltage (Volts AC)	120.0
Input Current (mA AC)	23.6
Input Power (Watts)	2.62
Input Power Factor (%)	92.5

Checked:	<i>N Gully</i>
Approved:	<i>R Bergin</i>