

# LIGHT LABORATORY, INC.

8165 E Kaiser Blvd. Anaheim, CA 92808

SHT 1 OF 7

Test #: L03113603

Date: 4/7/2011

## Luminaire Photometric Performance LM-79-2008

Manufacturer:	ATEX AMERICA, INC.
Model Number:	TL30-090AL

Total Lumens:	215.15
Input Power (W):	3.99
Input Current (Amp):	0.08
Input Power Factor:	0.43
Efficacy:	53.92
Color Rendering Index ( CRI ):	75.80
Correlated Color Temperature ( K ):	3217
Chromaticity Ordinate x:	0.414
Chromaticity Ordinate y:	0.380

\*Test data documentation on file and available upon request.

\*All results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.

REV.	LOG NUMBER	REVISION DESCRIPTION	REVISION BY	CHECKED BY	APPROVED BY	DATE
A					JS	4/7/11

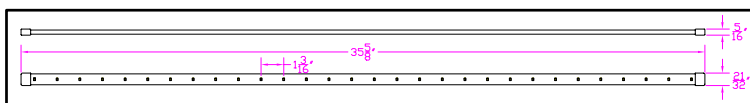
**IES INDOOR REPORT  
PHOTOMETRIC FILENAME : L03113603.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] L03113603  
[TESTLAB] LIGHT LABORATORY, INC.  
[ISSUEDATE] 4/7/2011  
[MANUFAC] ATEX AMERICA, INC.  
[LUMCAT] TL30-090AL  
[LUMINAIRE] 35-5/8"L. X 21/32"W. X 5/16"H. LED STRIP  
[MORE] FIVE MODULES, EACH MODULE HAS 6 WARM WHITE LEDS  
[MORE] 1-3/16" SPACING, TOTAL 30 LEDS  
[BALLASTCAT] JET GF12-US2405  
[BALLAST] INPUT:100-240VAC 50-60Hz 0.3A, OUTPUT:24VDC 0.5A  
[LAMPPOSITION] 0,0  
[LAMPCAT] WARM WHITE LED  
[OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND  
[MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.  
[\_INPUT] 120VAC, 3.99W  
[\_TEST PROCEDURE] IESNA:LM-79-08

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	215
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	54
Total Luminaire Watts	3.99
Ballast Factor	1.00
CIE Type	Direct
Spacing Criteria (0-180)	1.30
Spacing Criteria (90-270)	1.40
Spacing Criteria (Diagonal)	1.54
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	2.89 ft
Luminous Width (90-270)	0.05 ft
Luminous Height	0.01 ft



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L03113603.IES**

**LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	4622	4590	4595
55	4510	4654	4616
65	4361	4532	3997
75	3540	3811	2875
85	2053	1879	1728

**IES INDOOR REPORT  
PHOTOMETRIC FILENAME : L03113603.IES**

**CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0</b>	61.12	61.12	61.12	61.12	61.12
<b>5</b>	60.70	60.70	60.29	60.70	60.70
<b>10</b>	61.53	60.70	60.29	61.53	61.53
<b>15</b>	59.87	60.29	60.29	59.87	60.70
<b>20</b>	58.21	58.62	59.46	59.87	59.04
<b>25</b>	55.71	56.13	56.96	58.21	59.04
<b>30</b>	53.22	53.64	54.47	55.71	55.71
<b>35</b>	50.73	50.73	51.97	54.88	54.88
<b>40</b>	49.06	49.89	51.14	52.39	54.05
<b>45</b>	44.07	46.15	49.89	51.56	52.39
<b>50</b>	38.25	40.33	47.40	50.73	50.73
<b>55</b>	34.93	37.42	43.24	46.57	45.74
<b>60</b>	29.94	33.26	39.08	41.58	39.91
<b>65</b>	24.95	27.44	33.68	32.85	32.43
<b>70</b>	19.96	22.45	27.44	25.78	24.12
<b>75</b>	12.47	16.22	20.37	17.88	17.46
<b>80</b>	6.65	9.98	12.06	12.06	11.64
<b>85</b>	2.50	4.57	5.82	7.07	6.65
<b>90</b>	0.00	1.25	2.50	3.74	4.16
<b>95</b>	0.00	0.00	1.25	2.50	2.50
<b>100</b>	0.00	0.00	0.83	2.08	1.66
<b>105</b>	0.00	0.00	0.42	2.08	2.50
<b>110</b>	0.00	0.00	0.00	0.00	0.00
<b>115</b>	0.00	0.00	0.00	0.00	0.00
<b>120</b>	0.00	0.00	0.00	0.00	0.00
<b>125</b>	0.00	0.00	0.00	0.00	0.00
<b>130</b>	0.00	0.00	0.00	0.00	0.00
<b>135</b>	0.00	0.00	0.00	0.00	0.00
<b>140</b>	0.00	0.00	0.00	0.00	0.00
<b>145</b>	0.00	0.00	0.00	0.00	0.00
<b>150</b>	0.00	0.00	0.00	0.00	0.00
<b>155</b>	0.00	0.00	0.00	0.00	0.00
<b>160</b>	0.00	0.00	0.00	0.00	0.00
<b>165</b>	0.00	0.00	0.00	0.00	0.00
<b>170</b>	0.00	0.00	0.00	0.00	0.00
<b>175</b>	0.00	0.00	0.00	0.00	0.00
<b>180</b>	0.00	0.00	0.00	0.00	0.00

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L03113603.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-30	49.17	N.A.	22.90
0-40	82.27	N.A.	38.20
0-60	157.30	N.A.	73.10
0-90	212.81	N.A.	98.90
90-120	2.34	N.A.	1.10
90-130	2.34	N.A.	1.10
90-150	2.34	N.A.	1.10
90-180	2.34	N.A.	1.10
0-180	215.15	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	5.81
10-20	17.02
20-30	26.34
30-40	33.11
40-50	37.69
50-60	37.34
60-70	30.45
70-80	18.46
80-90	6.60
90-100	1.59
100-110	0.75
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

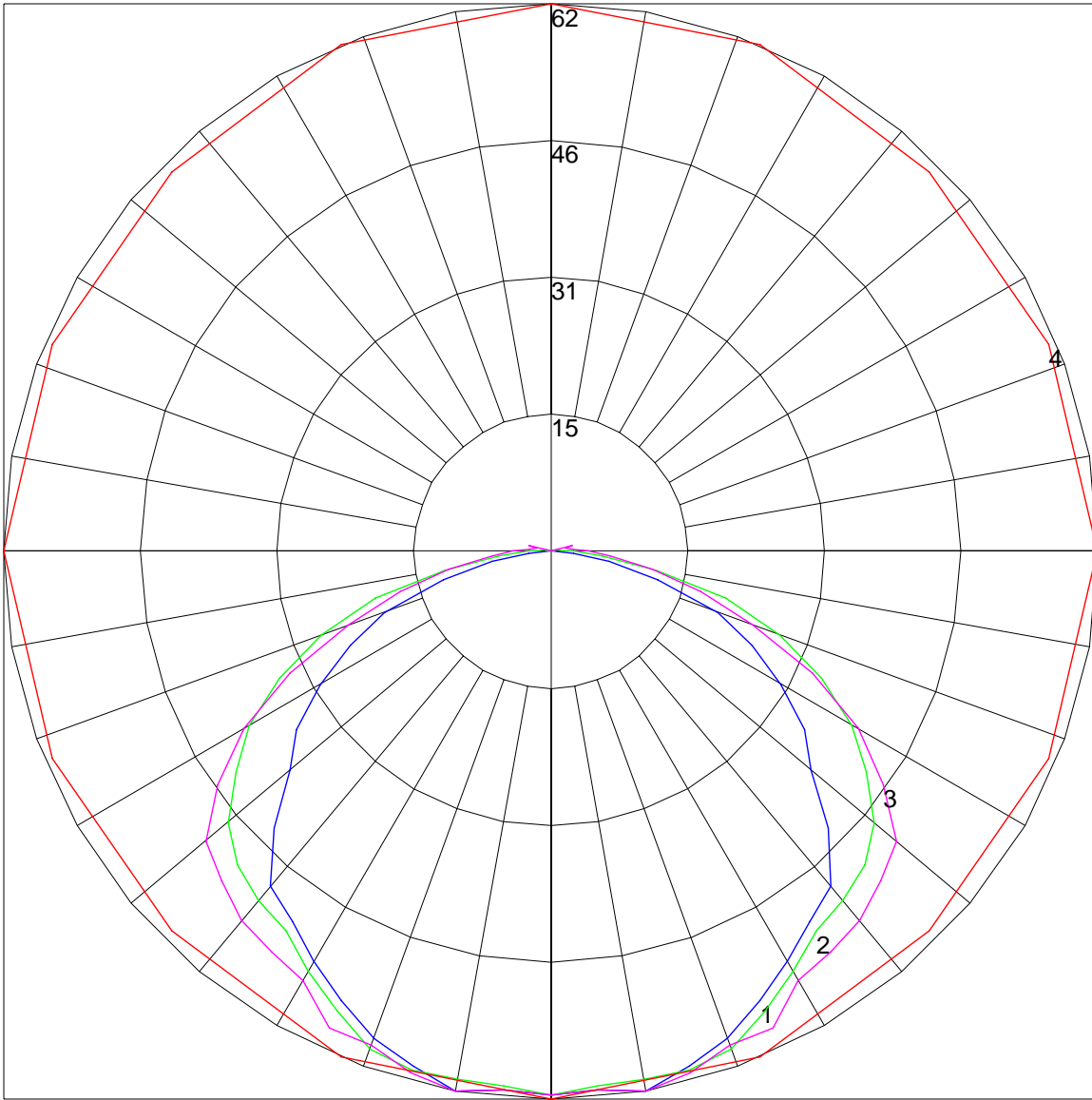
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**PHOTOMETRIC FILENAME : L03113603.IES**

**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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99
1	107	102	97	93	105	100	95	92	95	92	88	91	88	86	87	85	83	81
2	97	88	81	74	94	86	79	73	82	76	72	79	74	70	75	71	68	66
3	88	77	68	61	85	75	67	60	72	65	59	69	63	58	66	61	57	54
4	80	67	58	51	78	66	57	50	63	56	50	61	54	49	58	53	48	46
5	73	60	50	43	71	58	50	43	56	48	42	54	47	42	52	46	41	39
6	67	53	44	37	65	52	44	37	50	43	37	49	42	36	47	41	36	34
7	62	48	39	33	60	47	39	32	46	38	32	44	37	32	43	36	31	29
8	58	44	35	29	56	43	35	29	42	34	28	40	33	28	39	33	28	26
9	54	40	32	26	52	39	31	26	38	31	25	37	30	25	36	30	25	23
10	51	37	29	23	49	36	28	23	35	28	23	34	28	23	33	27	23	21

POLAR GRAPH



Maximum Candela = 61.53 Located At Horizontal Angle = 0, Vertical Angle = 10  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.) : BLUE  
# 2 - Vertical Plane Through Horizontal Angles (45 - 225) : GREEN  
# 3 - Vertical Plane Through Horizontal Angles (90 - 270) : MAGENTA  
# 4 - Horizontal Cone Through Vertical Angle (10) (Through Max. Cd.) : RED

# LIGHT LABORATORY, INC.

8165 E Kaiser Blvd. Anaheim, CA 92808

SHT 1 OF 7

Test #: L03113604

Date: 4/7/2011

## Luminaire Photometric Performance LM-79-2008

Manufacturer:	ATEX AMERICA, INC.
Model Number:	TL30-090AW

Total Lumens:	204.61
Input Power (W):	3.98
Input Current (Amp):	0.08
Input Power Factor:	0.43
Efficacy:	51.41
Color Rendering Index ( CRI ):	76.80
Correlated Color Temperature ( K ):	8642
Chromaticity Ordinate x:	0.297
Chromaticity Ordinate y:	0.278

\*Test data documentation on file and available upon request.

\*All results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.

REV.	LOG NUMBER	REVISION DESCRIPTION	REVISION BY	CHECKED BY	APPROVED BY	DATE
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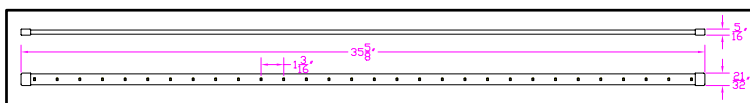
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**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] L03113604  
[TESTLAB] LIGHT LABORATORY, INC.  
[ISSUEDATE] 4/7/2011  
[MANUFAC] ATEX AMERICA, INC.  
[LUMCAT] TL30-090AW  
[LUMINAIRE] 35-5/8"L. X 21/32"W. X 5/16"H. LED STRIP  
[MORE] FIVE MODULES, EACH MODULE HAS 6 COOL WHITE LEDS  
[MORE] 1-3/16" SPACING, TOTAL 30 LEDS  
[BALLASTCAT] JET GF12-US2405  
[BALLAST] INPUT:100-240VAC 50-60Hz 0.3A, OUTPUT:24VDC 0.5A  
[LAMPPOSITION] 0,0  
[LAMPCAT] COOL WHITE LED  
[OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND  
[MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.  
[\_INPUT] 120VAC, 3.98W  
[\_TEST PROCEDURE] IESNA:LM-79-08

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	205
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	51
Total Luminaire Watts	3.98
Ballast Factor	1.00
CIE Type	Direct
Spacing Criteria (0-180)	1.42
Spacing Criteria (90-270)	1.46
Spacing Criteria (Diagonal)	1.62
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	2.89 ft
Luminous Width (90-270)	0.05 ft
Luminous Height	0.01 ft



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L03113604.IES**

**LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	4274	4514	4230
55	4617	4386	3944
65	4506	4084	3279
75	3540	3267	3150
85	2053	2015	3025

**IES INDOOR REPORT  
PHOTOMETRIC FILENAME : L03113604.IES**

**CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0</b>	54.26	54.26	54.26	54.26	54.26
<b>5</b>	54.05	53.64	54.47	54.05	54.05
<b>10</b>	53.22	53.64	53.64	53.22	53.22
<b>15</b>	53.22	53.22	54.47	54.05	54.05
<b>20</b>	51.56	52.39	52.80	54.05	54.05
<b>25</b>	49.89	51.14	52.39	54.05	54.05
<b>30</b>	49.89	50.31	51.56	53.22	53.22
<b>35</b>	49.89	49.89	51.56	51.14	51.56
<b>40</b>	45.74	49.06	51.14	49.48	49.89
<b>45</b>	40.75	45.74	49.06	49.06	48.23
<b>50</b>	38.25	42.41	46.57	43.24	43.24
<b>55</b>	35.76	38.67	40.75	39.08	39.08
<b>60</b>	29.94	33.68	35.76	34.09	34.09
<b>65</b>	25.78	29.10	30.35	27.44	26.61
<b>70</b>	20.79	23.28	22.45	22.45	22.45
<b>75</b>	12.47	16.63	17.46	18.29	19.13
<b>80</b>	7.48	10.40	11.64	14.14	15.80
<b>85</b>	2.50	4.16	6.24	9.98	11.64
<b>90</b>	0.00	0.83	3.33	6.65	6.65
<b>95</b>	0.00	0.00	3.33	3.74	3.33
<b>100</b>	0.00	0.00	1.25	2.50	3.33
<b>105</b>	0.00	0.00	0.83	2.08	2.50
<b>110</b>	0.00	0.00	0.00	0.00	0.00
<b>115</b>	0.00	0.00	0.00	0.00	0.00
<b>120</b>	0.00	0.00	0.00	0.00	0.00
<b>125</b>	0.00	0.00	0.00	0.00	0.00
<b>130</b>	0.00	0.00	0.00	0.00	0.00
<b>135</b>	0.00	0.00	0.00	0.00	0.00
<b>140</b>	0.00	0.00	0.00	0.00	0.00
<b>145</b>	0.00	0.00	0.00	0.00	0.00
<b>150</b>	0.00	0.00	0.00	0.00	0.00
<b>155</b>	0.00	0.00	0.00	0.00	0.00
<b>160</b>	0.00	0.00	0.00	0.00	0.00
<b>165</b>	0.00	0.00	0.00	0.00	0.00
<b>170</b>	0.00	0.00	0.00	0.00	0.00
<b>175</b>	0.00	0.00	0.00	0.00	0.00
<b>180</b>	0.00	0.00	0.00	0.00	0.00

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L03113604.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-30	44.53	N.A.	21.80
0-40	76.34	N.A.	37.30
0-60	147.18	N.A.	71.90
0-90	201.17	N.A.	98.30
90-120	3.44	N.A.	1.70
90-130	3.44	N.A.	1.70
90-150	3.44	N.A.	1.70
90-180	3.44	N.A.	1.70
0-180	204.61	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	5.14
10-20	15.17
20-30	24.22
30-40	31.81
40-50	36.11
50-60	34.72
60-70	27.95
70-80	18.08
80-90	7.96
90-100	2.53
100-110	0.91
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

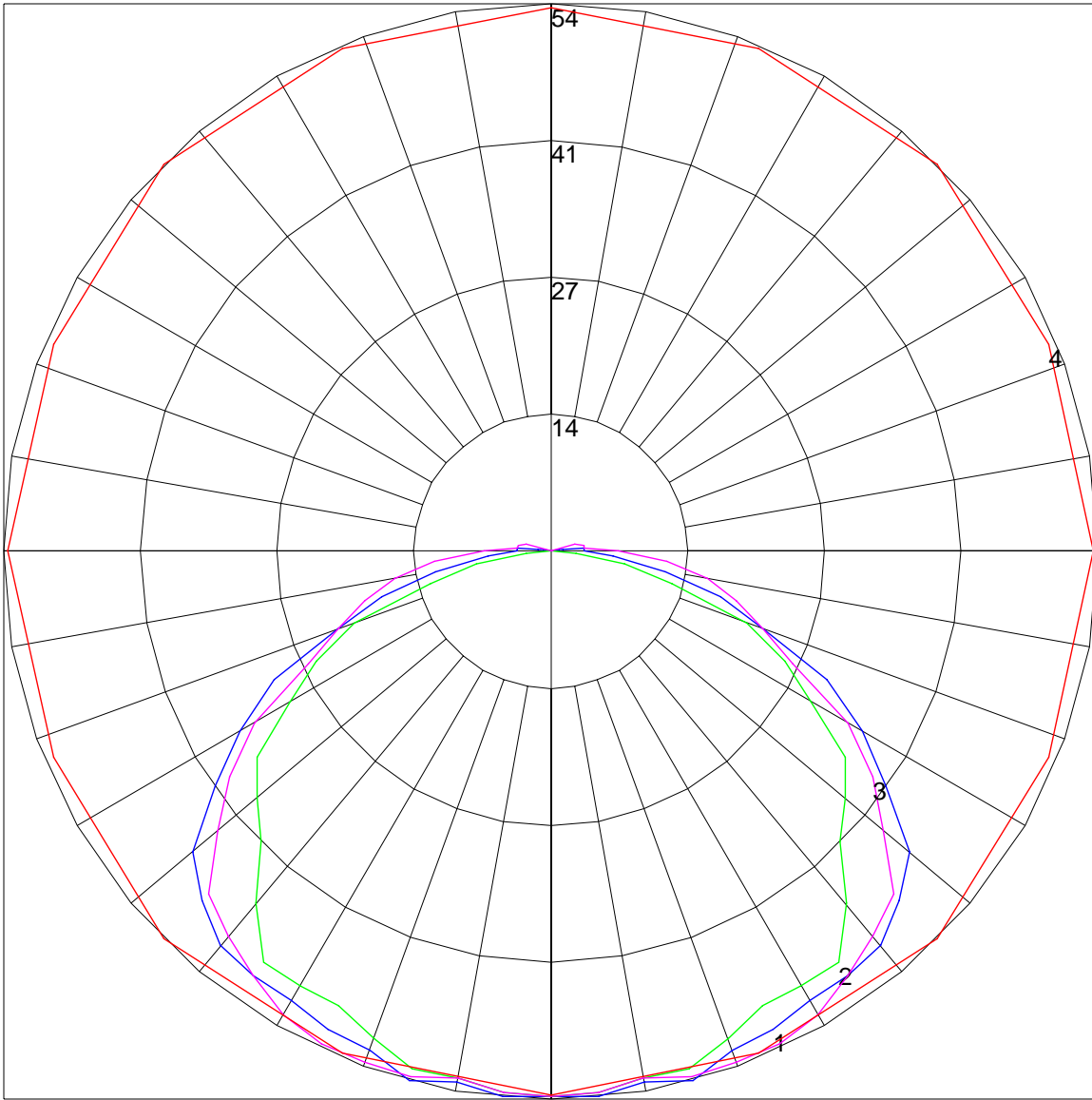
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L03113604.IES**

**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	118	118	118	118	115	115	115	115	110	110	110	105	105	105	100	100	100	98
1	107	101	96	92	104	99	94	90	94	91	87	90	87	84	86	84	81	79
2	96	87	80	73	93	85	78	72	81	75	70	78	73	68	74	70	67	64
3	87	76	67	60	84	74	66	59	71	64	58	68	62	57	65	60	55	53
4	79	66	57	50	77	65	56	49	62	55	49	60	53	48	57	52	47	44
5	73	59	49	42	70	58	49	42	55	47	41	53	46	41	51	45	40	38
6	67	53	43	37	65	52	43	36	50	42	36	48	41	35	46	40	35	33
7	62	48	38	32	60	47	38	32	45	37	31	43	36	31	42	35	31	29
8	57	43	34	28	56	42	34	28	41	33	28	39	33	27	38	32	27	25
9	53	39	31	25	52	39	31	25	37	30	25	36	29	25	35	29	24	22
10	50	36	28	23	49	36	28	23	35	27	22	33	27	22	32	26	22	20

POLAR GRAPH



Maximum Candela = 54.47 Located At Horizontal Angle = 45, Vertical Angle = 5  
# 1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.) : BLUE  
# 2 - Vertical Plane Through Horizontal Angles (0 - 180) : GREEN  
# 3 - Vertical Plane Through Horizontal Angles (90 - 270) : MAGENTA  
# 4 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.) : RED