

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : ALXXX16LEDGV-27L35KEX-AL16XX16FO90.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002

[TESTLAB] Photopia 2015.1.1 see: www.ltioptics.com/ies

[ISSUE DATE]

[TEST DATE] Wed Jun 29 2016

[UPDATE] Mon Sep 18 2017

[TEST] SP-00392\_33\_M-27L-Gen3

[MANUFAC] Spectrum Lighting

[LUMCAT] ALxxx16LEDGV-27L-35K-EX-AL16-xx16-FO90

[LUMINAIRE] 16" Diam. LED Low Bay: ALDDH and ALEXT Series, Spun Aluminum Reflector

[OTHER] Flat Lens, White Optical Acrylic

[OTHER] 68.4 Deg. Beam Angle

[LAMP] N/A

[LAMPCAT] N/A, Gen3

[OTHER] Total Luminaire Watts is approximate

[OTHER] CCT Output Multipliers: 50K x 1.06, 40K X 1.03, 30K X 0.985, 27K X 0.971

[OTHER] This report prepared by Spectrum Lighting, scaled from Gen2 60L

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1837
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	18
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.06
Spacing Criterion (90-270)	1.06
Spacing Criterion (Diagonal)	1.02
Basic Luminous Shape	Circular
Luminous Length (0-180)	1.33 ft (Diameter)
Luminous Width (90-270)	1.33 ft (Diameter)
Luminous Height	0.00 ft

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : ALXXX16LEDGV-27L35KEX-AL16XX16FO90.IES****LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3323	3338	3357
55	2611	2553	2600
65	1801	1843	1816
75	1125	1122	1123
85	817	856	784

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>	<u>202.5</u>
0.0	1221.209	1221.209	1221.209	1221.209	1221.209	1221.209	1221.209	1221.209	1221.209	1221.209
2.5	1223.765	1211.817	1218.309	1221.198	1227.337	1221.198	1218.309	1211.817	1223.765	1211.817
5.0	1226.321	1202.424	1215.409	1221.187	1233.465	1221.187	1215.409	1202.424	1226.321	1202.424
7.5	1226.695	1216.886	1220.807	1222.559	1230.131	1222.559	1220.807	1216.886	1226.695	1216.886
10.0	1227.069	1231.348	1226.205	1223.931	1226.796	1223.931	1226.205	1231.348	1227.069	1231.348
12.5	1206.654	1214.286	1208.610	1201.985	1217.170	1201.985	1208.610	1214.286	1206.654	1214.286
15.0	1186.238	1197.223	1191.014	1180.039	1207.544	1180.039	1191.014	1197.223	1186.238	1197.223
17.5	1147.138	1153.734	1153.000	1147.362	1155.247	1147.362	1153.000	1153.734	1147.138	1153.734
20.0	1108.038	1110.245	1114.985	1114.685	1102.949	1114.685	1114.985	1110.245	1108.038	1110.245
22.5	1040.695	1046.064	1048.358	1048.761	1041.449	1048.761	1048.358	1046.064	1040.695	1046.064
25.0	973.351	981.882	981.730	982.836	979.949	982.836	981.730	981.882	973.351	981.882
27.5	882.647	889.995	891.438	895.321	893.849	895.321	891.438	889.995	882.647	889.995
30.0	791.943	798.107	801.146	807.806	807.748	807.806	801.146	798.107	791.943	798.107
32.5	692.540	697.688	695.779	702.164	701.043	702.164	695.779	697.688	692.540	697.688
35.0	593.137	597.268	590.411	596.521	594.337	596.521	590.411	597.268	593.137	597.268
37.5	502.785	506.887	504.152	506.737	505.177	506.737	504.152	506.887	502.785	506.887
40.0	412.432	416.505	417.893	416.953	416.017	416.953	417.893	416.505	412.432	416.505
42.5	358.749	359.181	362.192	359.736	362.122	359.736	362.192	359.181	358.749	359.181
45.0	305.066	301.857	306.490	302.519	308.226	302.519	306.490	301.857	305.066	301.857
47.5	272.940	272.099	273.880	271.465	275.216	271.465	273.880	272.099	272.940	272.099
50.0	240.813	242.340	241.270	240.410	242.205	240.410	241.270	242.340	240.813	242.340
52.5	217.612	216.675	215.694	215.813	217.914	215.813	215.694	216.675	217.612	216.675
55.0	194.411	191.009	190.118	191.215	193.623	191.215	190.118	191.009	194.411	191.009
57.5	169.797	168.199	167.093	167.691	169.056	167.691	167.093	168.199	169.797	168.199
60.0	145.184	145.389	144.069	144.167	144.490	144.167	144.069	145.389	145.184	145.389
62.5	122.010	122.432	122.602	122.799	122.063	122.799	122.602	122.432	122.010	122.432
65.0	98.835	99.475	101.135	101.431	99.636	101.431	101.135	99.475	98.835	99.475
67.5	81.996	81.506	82.945	83.377	82.007	83.377	82.945	81.506	81.996	81.506
70.0	65.157	63.537	64.754	65.323	64.378	65.323	64.754	63.537	65.157	63.537
72.5	51.474	50.763	51.223	51.680	51.053	51.680	51.223	50.763	51.474	50.763
75.0	37.791	37.988	37.692	38.037	37.728	38.037	37.692	37.988	37.791	37.988
77.5	28.815	29.423	29.269	29.090	29.392	29.090	29.269	29.423	28.815	29.423
80.0	19.838	20.858	20.845	20.142	21.055	20.142	20.845	20.858	19.838	20.858
82.5	14.543	15.075	15.264	14.688	14.963	14.688	15.264	15.075	14.543	15.075
85.0	9.247	9.292	9.682	9.234	8.871	9.234	9.682	9.292	9.247	9.292
87.5	6.038	6.058	6.347	5.976	5.953	5.976	6.347	6.058	6.038	6.058
90.0	2.829	2.824	3.012	2.717	3.035	2.717	3.012	2.824	2.829	2.824

Vert. Angles Horizontal Angles

	<u>225.0</u>	<u>247.5</u>	<u>270.0</u>	<u>292.5</u>	<u>315.0</u>	<u>337.5</u>	<u>360.0</u>
0.0	1221.209	1221.209	1221.209	1221.209	1221.209	1221.209	1221.209
2.5	1218.309	1221.198	1227.337	1221.198	1218.309	1211.817	1223.765
5.0	1215.409	1221.187	1233.465	1221.187	1215.409	1202.424	1226.321
7.5	1220.807	1222.559	1230.131	1222.559	1220.807	1216.886	1226.695
10.0	1226.205	1223.931	1226.796	1223.931	1226.205	1231.348	1227.069
12.5	1208.610	1201.985	1217.170	1201.985	1208.610	1214.286	1206.654
15.0	1191.014	1180.039	1207.544	1180.039	1191.014	1197.223	1186.238
17.5	1153.000	1147.362	1155.247	1147.362	1153.000	1153.734	1147.138
20.0	1114.985	1114.685	1102.949	1114.685	1114.985	1110.245	1108.038
22.5	1048.358	1048.761	1041.449	1048.761	1048.358	1046.064	1040.695
25.0	981.730	982.836	979.949	982.836	981.730	981.882	973.351
27.5	891.438	895.321	893.849	895.321	891.438	889.995	882.647
30.0	801.146	807.806	807.748	807.806	801.146	798.107	791.943

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : ALXXX16LEDGV-27L35KEX-AL16XX16FO90.IES****CANDELA TABULATION - (Cont.)**

32.5	695.779	702.164	701.043	702.164	695.779	697.688	692.540
35.0	590.411	596.521	594.337	596.521	590.411	597.268	593.137
37.5	504.152	506.737	505.177	506.737	504.152	506.887	502.785
40.0	417.893	416.953	416.017	416.953	417.893	416.505	412.432
42.5	362.192	359.736	362.122	359.736	362.192	359.181	358.749
45.0	306.490	302.519	308.226	302.519	306.490	301.857	305.066
47.5	273.880	271.465	275.216	271.465	273.880	272.099	272.940
50.0	241.270	240.410	242.205	240.410	241.270	242.340	240.813
52.5	215.694	215.813	217.914	215.813	215.694	216.675	217.612
55.0	190.118	191.215	193.623	191.215	190.118	191.009	194.411
57.5	167.093	167.691	169.056	167.691	167.093	168.199	169.797
60.0	144.069	144.167	144.490	144.167	144.069	145.389	145.184
62.5	122.602	122.799	122.063	122.799	122.602	122.432	122.010
65.0	101.135	101.431	99.636	101.431	101.135	99.475	98.835
67.5	82.945	83.377	82.007	83.377	82.945	81.506	81.996
70.0	64.754	65.323	64.378	65.323	64.754	63.537	65.157
72.5	51.223	51.680	51.053	51.680	51.223	50.763	51.474
75.0	37.692	38.037	37.728	38.037	37.692	37.988	37.791
77.5	29.269	29.090	29.392	29.090	29.269	29.423	28.815
80.0	20.845	20.142	21.055	20.142	20.845	20.858	19.838
82.5	15.264	14.688	14.963	14.688	15.264	15.075	14.543
85.0	9.682	9.234	8.871	9.234	9.682	9.292	9.247
87.5	6.347	5.976	5.953	5.976	6.347	6.058	6.038
90.0	3.012	2.717	3.035	2.717	3.012	2.824	2.829

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : ALXXX16LEDGV-27L35KEX-AL16XX16FO90.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	449.51	N.A.	24.50
0-30	893.67	N.A.	48.60
0-40	1266.99	N.A.	69.00
0-60	1682.04	N.A.	91.60
0-80	1825.62	N.A.	99.40
0-90	1837.07	N.A.	100.00
10-90	1720.47	N.A.	93.70
20-40	817.48	N.A.	44.50
20-50	1060.84	N.A.	57.70
40-70	516.25	N.A.	28.10
60-80	143.58	N.A.	7.80
70-80	42.38	N.A.	2.30
80-90	11.45	N.A.	0.60
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1837.07	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	116.61
10-20	332.90
20-30	444.17
30-40	373.31
40-50	243.36
50-60	171.69
60-70	101.20
70-80	42.38
80-90	11.45
90-100	0.00
100-110	0.00
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

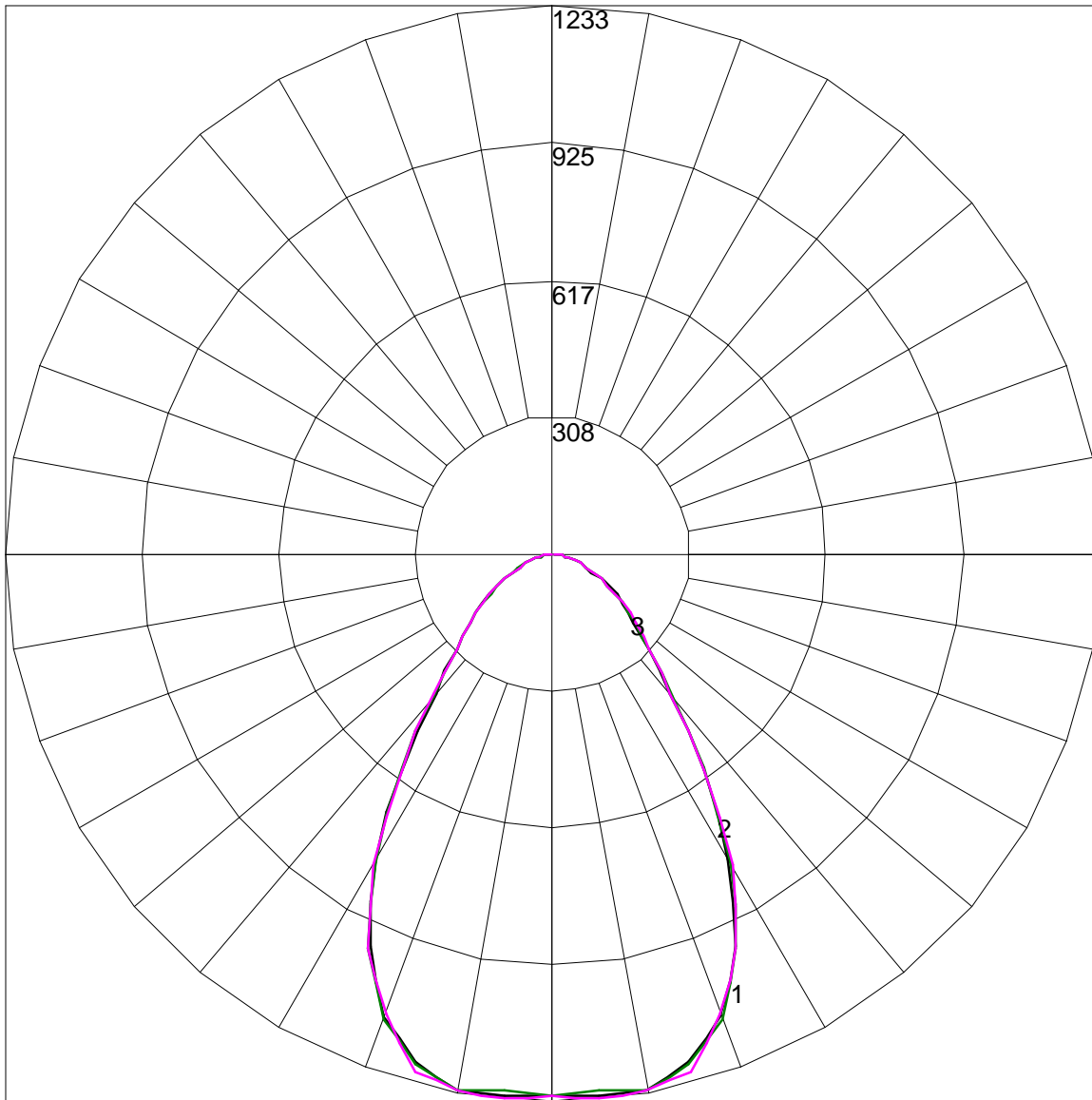
PHOTOMETRIC FILENAME : ALXXX16LEDGV-27L35KEX-AL16XX16FO90.IES

## 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	102	102	102	100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	88	82	77	94	87	81	76	84	79	75	82	77	74	79	76	72	71
4	90	81	73	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	63	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	54	52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47
8	70	58	51	46	68	58	51	46	56	50	46	55	50	45	54	49	45	44
9	66	54	47	42	65	54	47	42	53	46	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	49	43	39	48	43	39	48	43	39	37

POLAR GRAPH



Maximum Candela = 1233.465 Located At Horizontal Angle = 90, Vertical Angle = 5

# 1 - Vertical Plane Through Horizontal Angles (0 - 180)

# 2 - Vertical Plane Through Horizontal Angles (45 - 225)

# 3 - Vertical Plane Through Horizontal Angles (90 - 270)