

IES INDOOR REPORT**PHOTOMETRIC FILENAME : ALX16LX-65L35KEX-AL16-1MR.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002

[TESTLAB] Photopia 2018.1.0 see: www.ltiopics.com/ies

[ISSUE DATE]

[TEST DATE] 7/27/2018

[UPDATE] 8/3/2018

[TEST] SP-00467_21_M-65L

[MANUFAC] Spectrum Lighting

[LUMCAT] ALX16LX-65L-35K-EX-AL16-1MR-xx

[LUMINAIRE] 16" Diam. Alum. Reflector LED Tech Pendant w/ Formed Metal Ring

[OTHER] 22" outside diam. metal ring, Matte White Finish, 16" diam. Open Center

[OTHER] Matte white, inside reflector finish

[OTHER] 72 Deg. Beam Angle

[OTHER] 97.2% Downlight, 2.8% Uplight

[LAMP] N/A

[LAMPCAT] N/A

[OTHER] Total Luminaire Watts is approximate

[OTHER] CCT Output Multipliers: 40K x 1.03, 30K x 0.979, 27K x 0.959

[OTHER] Adapted from Intertek LX-AL16 test luminaire ref. CRT1709151315-001-006

[OTHER] This report updated by Spectrum Lighting

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5406
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	96
Total Luminaire Watts	56.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.12
Spacing Criterion (90-270)	1.12
Spacing Criterion (Diagonal)	1.06
Basic Luminous Shape	Circular w/ Sides
Luminous Length (0-180)	1.33 ft (Diameter)
Luminous Width (90-270)	1.33 ft (Diameter)
Luminous Height	0.92 ft

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LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3659	3692	3713
55	2712	2746	2740
65	1909	1925	1921
75	1055	1041	1037
85	166	161	170

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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	3564.226	3564.226	3564.226	3564.226	3564.226	3564.226	3564.226	3564.226	3564.226	3564.226
2.5	3573.035	3562.451	3563.463	3566.499	3578.188	3566.499	3563.463	3562.451	3573.035	3562.451
5.0	3581.840	3560.673	3562.696	3568.772	3592.146	3568.772	3562.696	3560.673	3581.840	3560.673
7.5	3536.945	3523.406	3529.128	3530.691	3548.291	3530.691	3529.128	3523.406	3536.945	3523.406
10.0	3492.050	3486.139	3495.560	3492.605	3504.431	3492.605	3495.560	3486.139	3492.050	3486.139
12.5	3399.337	3398.490	3410.758	3388.057	3421.827	3388.057	3410.758	3398.490	3399.337	3398.490
15.0	3306.619	3310.836	3325.956	3283.503	3339.218	3283.503	3325.956	3310.836	3306.619	3310.836
17.5	3160.691	3180.315	3191.110	3155.439	3201.421	3155.439	3191.110	3180.315	3160.691	3180.315
20.0	3014.758	3049.789	3056.260	3027.370	3063.625	3027.370	3056.260	3049.789	3014.758	3049.789
22.5	2902.708	2925.937	2932.605	2915.066	2937.542	2915.066	2932.605	2925.937	2902.708	2925.937
25.0	2790.653	2802.080	2808.946	2802.762	2811.454	2802.762	2808.946	2802.080	2790.653	2802.080
27.5	2700.788	2713.221	2709.743	2700.411	2707.112	2700.411	2709.743	2713.221	2700.788	2713.221
30.0	2610.917	2624.362	2610.536	2598.056	2602.771	2598.056	2610.536	2624.362	2610.917	2624.362
32.5	2318.453	2327.691	2329.381	2331.178	2332.082	2331.178	2329.381	2327.691	2318.453	2327.691
35.0	2025.990	2031.020	2048.221	2064.301	2061.393	2064.301	2048.221	2031.020	2025.990	2031.020
37.5	1597.127	1603.372	1620.982	1629.636	1623.711	1629.636	1620.982	1603.372	1597.127	1603.372
40.0	1168.265	1175.724	1193.743	1194.966	1186.030	1194.966	1193.743	1175.724	1168.265	1175.724
42.5	898.451	908.347	913.990	914.795	911.938	914.795	913.990	908.347	898.451	908.347
45.0	628.632	640.971	634.237	634.623	637.842	634.623	634.237	640.971	628.632	640.971
47.5	583.073	588.551	585.318	581.398	581.878	581.398	585.318	588.551	583.073	588.551
50.0	537.510	536.126	536.399	528.169	525.910	528.169	536.399	536.126	537.510	536.126
52.5	495.589	498.314	497.876	493.786	492.158	493.786	497.876	498.314	495.589	498.314
55.0	453.668	460.501	459.348	459.404	458.407	459.404	459.348	460.501	453.668	460.501
57.5	416.886	420.716	420.891	419.978	421.253	419.978	420.891	420.716	416.886	420.716
60.0	380.104	380.937	382.438	380.551	384.104	380.551	382.438	380.937	380.104	380.937
62.5	340.564	342.507	343.039	341.477	343.533	341.477	343.039	342.507	340.564	342.507
65.0	301.019	304.078	303.636	302.398	302.963	302.398	303.636	304.078	301.019	304.078
67.5	262.280	265.249	264.665	263.004	263.442	263.004	264.665	265.249	262.280	265.249
70.0	223.535	226.415	225.695	223.610	223.921	223.610	225.695	226.415	223.535	226.415
72.5	187.407	186.871	187.431	186.174	186.292	186.174	187.431	186.871	187.407	186.871
75.0	151.279	147.321	149.161	148.733	148.658	148.733	149.161	147.321	151.279	147.321
77.5	115.673	113.222	114.182	113.292	114.313	113.292	114.182	113.222	115.673	113.222
80.0	80.068	79.122	79.202	77.851	79.969	77.851	79.202	79.122	80.068	79.122
82.5	50.392	49.761	49.611	49.197	50.547	49.197	49.611	49.761	50.392	49.761
85.0	20.716	20.396	20.019	20.542	21.125	20.542	20.019	20.396	20.716	20.396
87.5	10.598	10.433	10.250	10.589	10.923	10.589	10.250	10.433	10.598	10.433
90.0	0.480	0.471	0.475	0.631	0.720	0.631	0.475	0.471	0.480	0.471
92.5	1.200	1.031	1.139	1.271	1.228	1.271	1.139	1.031	1.200	1.031
95.0	1.920	1.591	1.798	1.906	1.732	1.906	1.798	1.591	1.920	1.591
97.5	2.772	2.692	2.777	2.795	2.800	2.795	2.777	2.692	2.772	2.692
100.0	3.624	3.788	3.755	3.680	3.864	3.680	3.755	3.788	3.624	3.788
102.5	5.788	5.840	6.137	6.080	6.325	6.080	6.137	5.840	5.788	5.840
105.0	7.948	7.887	8.518	8.476	8.781	8.476	8.518	7.887	7.948	7.887
107.5	12.264	11.944	12.123	12.363	12.113	12.363	12.123	11.944	12.264	11.944
110.0	16.579	16.000	15.727	16.245	15.440	16.245	15.727	16.000	16.579	16.000
112.5	19.342	18.645	18.457	18.758	19.083	18.758	18.457	18.645	19.342	18.645
115.0	22.104	21.290	21.186	21.271	22.721	21.271	21.186	21.290	22.104	21.290
117.5	24.490	23.812	22.904	23.488	23.568	23.488	22.904	23.812	24.490	23.812
120.0	26.876	26.330	24.622	25.704	24.410	25.704	24.622	26.330	26.876	26.330
122.5	25.902	27.690	26.429	26.485	25.709	26.485	26.429	27.690	25.902	27.690
125.0	24.928	29.045	28.231	27.262	27.003	27.262	28.231	29.045	24.928	29.045
127.5	28.438	30.951	29.361	28.810	29.130	28.810	29.361	30.951	28.438	30.951
130.0	31.944	32.857	30.485	30.354	31.257	30.354	30.485	32.857	31.944	32.857
132.5	33.271	34.086	32.589	32.646	32.486	32.646	32.589	34.086	33.271	34.086

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135.0	34.599	35.309	34.688	34.933	33.714	34.933	34.688	35.309	34.599	35.309
137.5	36.326	37.427	35.860	36.194	35.526	36.194	35.860	37.427	36.326	37.427
140.0	38.053	39.540	37.032	37.455	37.333	37.455	37.032	39.540	38.053	39.540
142.5	39.982	40.655	39.168	39.577	40.288	39.577	39.168	40.655	39.982	40.655
145.0	41.907	41.770	41.300	41.700	43.243	41.700	41.300	41.770	41.907	41.770
147.5	43.874	42.815	42.669	42.227	42.829	42.227	42.669	42.815	43.874	42.815
150.0	45.841	43.860	44.034	42.754	42.410	42.754	44.034	43.860	45.841	43.860
152.5	44.914	43.681	45.248	44.213	44.166	44.213	45.248	43.681	44.914	43.681
155.0	43.987	43.502	46.462	45.672	45.921	45.672	46.462	43.502	43.987	43.502
157.5	45.879	47.286	48.237	47.107	46.604	47.107	48.237	47.286	45.879	47.286
160.0	47.771	51.070	50.011	48.542	47.281	48.542	50.011	51.070	47.771	51.070
162.5	48.411	50.561	49.775	50.095	49.648	50.095	49.775	50.561	48.411	50.561
165.0	49.051	50.048	49.540	51.648	52.011	51.648	49.540	50.048	49.051	50.048
167.5	52.825	53.700	52.533	53.197	51.375	53.197	52.533	53.700	52.825	53.700
170.0	56.599	57.347	55.526	54.745	50.740	54.745	55.526	57.347	56.599	57.347
172.5	55.578	53.328	51.964	55.648	50.674	55.648	51.964	53.328	55.578	53.328
175.0	54.557	49.309	48.401	56.547	50.604	56.547	48.401	49.309	54.557	49.309
177.5	53.987	51.361	50.910	54.980	52.011	54.980	50.910	51.361	53.987	51.361
180.0	53.178	53.178	53.178	53.178	53.178	53.178	53.178	53.178	53.178	53.178

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	3564.226	3564.226	3564.226	3564.226	3564.226	3564.226	3564.226
2.5	3563.463	3566.499	3578.188	3566.499	3563.463	3562.451	3573.035
5.0	3562.696	3568.772	3592.146	3568.772	3562.696	3560.673	3581.840
7.5	3529.128	3530.691	3548.291	3530.691	3529.128	3523.406	3536.945
10.0	3495.560	3492.605	3504.431	3492.605	3495.560	3486.139	3492.050
12.5	3410.758	3388.057	3421.827	3388.057	3410.758	3398.490	3399.337
15.0	3325.956	3283.503	3339.218	3283.503	3325.956	3310.836	3306.619
17.5	3191.110	3155.439	3201.421	3155.439	3191.110	3180.315	3160.691
20.0	3056.260	3027.370	3063.625	3027.370	3056.260	3049.789	3014.758
22.5	2932.605	2915.066	2937.542	2915.066	2932.605	2925.937	2902.708
25.0	2808.946	2802.762	2811.454	2802.762	2808.946	2802.080	2790.653
27.5	2709.743	2700.411	2707.112	2700.411	2709.743	2713.221	2700.788
30.0	2610.536	2598.056	2602.771	2598.056	2610.536	2624.362	2610.917
32.5	2329.381	2331.178	2332.082	2331.178	2329.381	2327.691	2318.453
35.0	2048.221	2064.301	2061.393	2064.301	2048.221	2031.020	2025.990
37.5	1620.982	1629.636	1623.711	1629.636	1620.982	1603.372	1597.127
40.0	1193.743	1194.966	1186.030	1194.966	1193.743	1175.724	1168.265
42.5	913.990	914.795	911.938	914.795	913.990	908.347	898.451
45.0	634.237	634.623	637.842	634.623	634.237	640.971	628.632
47.5	585.318	581.398	581.878	581.398	585.318	588.551	583.073
50.0	536.399	528.169	525.910	528.169	536.399	536.126	537.510
52.5	497.876	493.786	492.158	493.786	497.876	498.314	495.589
55.0	459.348	459.404	458.407	459.404	459.348	460.501	453.668
57.5	420.891	419.978	421.253	419.978	420.891	420.716	416.886
60.0	382.438	380.551	384.104	380.551	382.438	380.937	380.104
62.5	343.039	341.477	343.533	341.477	343.039	342.507	340.564
65.0	303.636	302.398	302.963	302.398	303.636	304.078	301.019
67.5	264.665	263.004	263.442	263.004	264.665	265.249	262.280
70.0	225.695	223.610	223.921	223.610	225.695	226.415	223.535
72.5	187.431	186.174	186.292	186.174	187.431	186.871	187.407
75.0	149.161	148.733	148.658	148.733	149.161	147.321	151.279
77.5	114.182	113.292	114.313	113.292	114.182	113.222	115.673
80.0	79.202	77.851	79.969	77.851	79.202	79.122	80.068

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CANDELA TABULATION - (Cont.)

82.5	49.611	49.197	50.547	49.197	49.611	49.761	50.392
85.0	20.019	20.542	21.125	20.542	20.019	20.396	20.716
87.5	10.250	10.589	10.923	10.589	10.250	10.433	10.598
90.0	0.475	0.631	0.720	0.631	0.475	0.471	0.480
92.5	1.139	1.271	1.228	1.271	1.139	1.031	1.200
95.0	1.798	1.906	1.732	1.906	1.798	1.591	1.920
97.5	2.777	2.795	2.800	2.795	2.777	2.692	2.772
100.0	3.755	3.680	3.864	3.680	3.755	3.788	3.624
102.5	6.137	6.080	6.325	6.080	6.137	5.840	5.788
105.0	8.518	8.476	8.781	8.476	8.518	7.887	7.948
107.5	12.123	12.363	12.113	12.363	12.123	11.944	12.264
110.0	15.727	16.245	15.440	16.245	15.727	16.000	16.579
112.5	18.457	18.758	19.083	18.758	18.457	18.645	19.342
115.0	21.186	21.271	22.721	21.271	21.186	21.290	22.104
117.5	22.904	23.488	23.568	23.488	22.904	23.812	24.490
120.0	24.622	25.704	24.410	25.704	24.622	26.330	26.876
122.5	26.429	26.485	25.709	26.485	26.429	27.690	25.902
125.0	28.231	27.262	27.003	27.262	28.231	29.045	24.928
127.5	29.361	28.810	29.130	28.810	29.361	30.951	28.438
130.0	30.485	30.354	31.257	30.354	30.485	32.857	31.944
132.5	32.589	32.646	32.486	32.646	32.589	34.086	33.271
135.0	34.688	34.933	33.714	34.933	34.688	35.309	34.599
137.5	35.860	36.194	35.526	36.194	35.860	37.427	36.326
140.0	37.032	37.455	37.333	37.455	37.032	39.540	38.053
142.5	39.168	39.577	40.288	39.577	39.168	40.655	39.982
145.0	41.300	41.700	43.243	41.700	41.300	41.770	41.907
147.5	42.669	42.227	42.829	42.227	42.669	42.815	43.874
150.0	44.034	42.754	42.410	42.754	44.034	43.860	45.841
152.5	45.248	44.213	44.166	44.213	45.248	43.681	44.914
155.0	46.462	45.672	45.921	45.672	46.462	43.502	43.987
157.5	48.237	47.107	46.604	47.107	48.237	47.286	45.879
160.0	50.011	48.542	47.281	48.542	50.011	51.070	47.771
162.5	49.775	50.095	49.648	50.095	49.775	50.561	48.411
165.0	49.540	51.648	52.011	51.648	49.540	50.048	49.051
167.5	52.533	53.197	51.375	53.197	52.533	53.700	52.825
170.0	55.526	54.745	50.740	54.745	55.526	57.347	56.599
172.5	51.964	55.648	50.674	55.648	51.964	53.328	55.578
175.0	48.401	56.547	50.604	56.547	48.401	49.309	54.557
177.5	50.910	54.980	52.011	54.980	50.910	51.361	53.987
180.0	53.178	53.178	53.178	53.178	53.178	53.178	53.178

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1263.7	N.A.	23.40
0-30	2560.86	N.A.	47.40
0-40	3782.4	N.A.	70.00
0-60	4764.03	N.A.	88.10
0-80	5222.44	N.A.	96.60
0-90	5255.2	N.A.	97.20
10-90	4917.47	N.A.	91.00
20-40	2518.7	N.A.	46.60
20-50	3090.67	N.A.	57.20
40-70	1281.51	N.A.	23.70
60-80	458.40	N.A.	8.50
70-80	158.52	N.A.	2.90
80-90	32.77	N.A.	0.60
90-110	11.71	N.A.	0.20
90-120	32.65	N.A.	0.60
90-130	57.76	N.A.	1.10
90-150	110.45	N.A.	2.00
90-180	151.15	N.A.	2.80
110-180	139.44	N.A.	2.60
0-180	5406.35	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	337.74
10-20	925.97
20-30	1297.16
30-40	1221.55
40-50	571.97
50-60	409.66
60-70	299.88
70-80	158.52
80-90	32.77
90-100	2.14
100-110	9.57
110-120	20.95
120-130	25.11
130-140	26.80
140-150	25.89
150-160	21.13
160-170	14.48
170-180	5.09

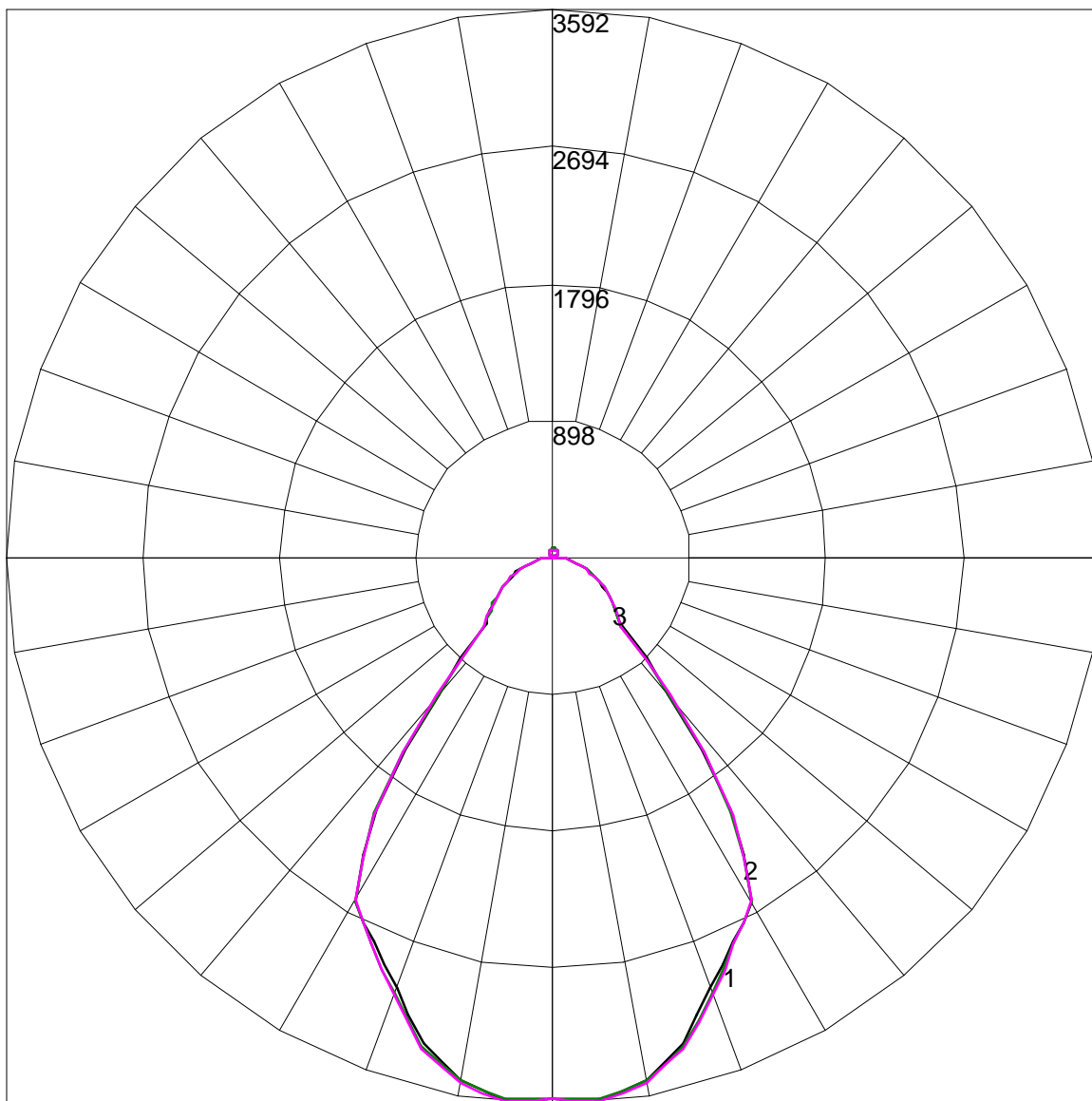
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	118	118	118	118	115	115	115	115	110	110	110	104	104	104	99	99	99	97
1	111	107	104	101	108	105	102	99	100	98	95	96	94	92	92	90	89	87
2	103	97	91	87	100	95	90	86	91	87	83	87	84	81	84	81	79	77
3	96	88	81	76	94	86	80	75	83	78	74	80	76	72	77	74	71	69
4	90	80	73	68	87	79	72	67	76	70	66	73	69	65	71	67	64	62
5	84	73	66	61	82	72	65	60	70	64	59	68	63	58	66	61	58	56
6	79	68	60	55	77	66	60	54	65	58	54	63	57	53	61	56	53	51
7	74	62	55	50	72	62	55	50	60	54	49	58	53	49	57	52	48	46
8	69	58	51	46	68	57	50	46	56	50	45	54	49	45	53	48	44	43
9	65	54	47	42	64	53	47	42	52	46	42	51	45	41	50	45	41	39
10	62	50	44	39	61	50	43	39	49	43	39	48	42	38	47	42	38	37

POLAR GRAPH



Maximum Candela = 3592.146 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)