

IES INDOOR REPORT**PHOTOMETRIC FILENAME : ALXXX16LX-100L35KEX-AL16.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002

[TEST]

[TESTLAB] Intertek

[ISSUE DATE] 10/18/2017

[UPDATE] 2/15/2018

[LAB-REF LUMCAT] CRT1709151315-001-006-NL_M-100L-35K

[MANUFAC] SPECTRUM

[LUMCAT] ALxxx16LX-100L-35K-EX-AL16

[LUMINAIRE] 16" Diam. LED Low Bay: Spun Aluminum Reflector

[OTHER] Matte white, inside reflector finish

[OTHER] Open aperture; No Lens

[OTHER] 73 Deg. Beam Angle

[LAMP] N/A

[LAMPCAT] N/A

[OTHER] Tested as ALDDH16LX, data applicable to ALEXT16LX & ALEXL16LX

[OTHER] Total Luminaire Watts is approximate

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

[OTHER] This report updated by Spectrum Lighting, scaled from 65K-27L

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	8243
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	81.06
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.14
Spacing Criterion (Diagonal)	1.08
Basic Luminous Shape	Circular
Luminous Length (0-180)	1.29 ft (Diameter)
Luminous Width (90-270)	1.29 ft (Diameter)
Luminous Height	0.00 ft

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LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	11014	10985	10965
55	10640	10629	10642
65	9857	9857	9887
75	8614	8609	8674
85	5184	5199	5420

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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	5391.580	5391.580	5391.580	5391.580	5391.580	5391.580	5391.580	5391.580	5391.580	5391.580
2.5	5395.491	5391.423	5391.110	5386.104	5399.559	5386.104	5391.110	5391.423	5395.491	5391.423
5.0	5391.423	5400.497	5388.138	5401.123	5400.185	5401.123	5388.138	5400.497	5391.423	5400.497
7.5	5364.827	5367.017	5374.527	5365.922	5372.180	5365.922	5374.527	5367.017	5364.827	5367.017
10.0	5308.505	5310.382	5306.315	5298.023	5304.124	5298.023	5306.315	5310.382	5308.505	5310.382
12.5	5210.880	5214.322	5206.969	5197.738	5208.064	5197.738	5206.969	5214.322	5210.880	5214.322
15.0	5066.320	5064.443	5060.532	5047.546	5060.219	5047.546	5060.532	5064.443	5066.320	5064.443
17.5	4867.629	4872.166	4861.371	4859.337	4867.472	4859.337	4861.371	4872.166	4867.629	4872.166
20.0	4659.237	4665.652	4655.170	4660.333	4662.053	4660.333	4655.170	4665.652	4659.237	4665.652
22.5	4470.559	4476.034	4473.688	4474.001	4475.096	4474.001	4473.688	4476.034	4470.559	4476.034
25.0	4313.483	4316.299	4317.551	4320.523	4318.333	4320.523	4317.551	4316.299	4313.483	4316.299
27.5	4198.336	4199.900	4194.268	4202.716	4199.118	4202.716	4194.268	4199.900	4198.336	4199.900
30.0	4086.161	4086.943	4087.413	4087.413	4086.630	4087.413	4087.413	4086.943	4086.161	4086.943
32.5	3804.551	3834.589	3827.549	3827.393	3813.469	3827.393	3827.549	3834.589	3804.551	3834.589
35.0	3209.259	3234.604	3226.312	3239.610	3236.012	3239.610	3226.312	3234.604	3209.259	3234.604
37.5	2495.065	2531.674	2523.851	2532.300	2545.598	2532.300	2523.851	2531.674	2495.065	2531.674
40.0	1824.833	1859.095	1865.666	1876.774	1886.631	1876.774	1865.666	1859.095	1824.833	1859.095
42.5	1207.794	1238.458	1230.323	1250.974	1256.763	1250.974	1230.323	1238.458	1207.794	1238.458
45.0	946.522	946.679	944.019	941.516	942.298	941.516	944.019	946.679	946.522	946.679
47.5	902.560	903.029	900.057	896.928	898.336	896.928	900.057	903.029	902.560	903.029
50.0	854.373	855.469	852.652	850.462	851.557	850.462	852.652	855.469	854.373	855.469
52.5	799.772	800.868	798.677	797.582	798.364	797.582	798.677	800.868	799.772	800.868
55.0	741.729	743.137	740.947	740.321	741.886	740.321	740.947	743.137	741.729	743.137
57.5	683.217	684.938	682.435	681.809	683.843	681.809	682.435	684.938	683.217	684.938
60.0	625.018	627.052	624.548	623.766	626.269	623.766	624.548	627.052	625.018	627.052
62.5	566.505	566.818	565.880	564.941	567.444	564.941	565.880	566.818	566.505	566.818
65.0	506.272	507.367	506.272	505.646	507.837	505.646	506.272	507.367	506.272	507.367
67.5	446.508	447.291	446.508	445.726	447.760	445.726	446.508	447.291	446.508	447.291
70.0	387.527	388.935	387.057	386.901	388.622	386.901	387.057	388.935	387.527	388.935
72.5	329.484	329.327	328.076	327.763	330.422	327.763	328.076	329.327	329.484	329.327
75.0	270.971	272.067	270.815	270.346	272.849	270.346	270.815	272.067	270.971	272.067
77.5	215.275	215.432	214.962	214.336	216.683	214.336	214.962	215.432	215.275	215.432
80.0	159.579	160.831	159.735	159.266	161.613	159.266	159.735	160.831	159.579	160.831
82.5	107.012	107.168	106.386	106.073	108.107	106.073	106.386	107.168	107.012	107.168
85.0	54.914	56.478	55.070	55.227	57.417	55.227	55.070	56.478	54.914	56.478
87.5	9.543	10.169	9.700	9.856	11.890	9.856	9.700	10.169	9.543	10.169
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
117.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
122.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
127.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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135.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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	5391.580	5391.580	5391.580	5391.580	5391.580	5391.580	5391.580
2.5	5391.110	5386.104	5399.559	5386.104	5391.110	5391.423	5395.491
5.0	5388.138	5401.123	5400.185	5401.123	5388.138	5400.497	5391.423
7.5	5374.527	5365.922	5372.180	5365.922	5374.527	5367.017	5364.827
10.0	5306.315	5298.023	5304.124	5298.023	5306.315	5310.382	5308.505
12.5	5206.969	5197.738	5208.064	5197.738	5206.969	5214.322	5210.880
15.0	5060.532	5047.546	5060.219	5047.546	5060.532	5064.443	5066.320
17.5	4861.371	4859.337	4867.472	4859.337	4861.371	4872.166	4867.629
20.0	4655.170	4660.333	4662.053	4660.333	4655.170	4665.652	4659.237
22.5	4473.688	4474.001	4475.096	4474.001	4473.688	4476.034	4470.559
25.0	4317.551	4320.523	4318.333	4320.523	4317.551	4316.299	4313.483
27.5	4194.268	4202.716	4199.118	4202.716	4194.268	4199.900	4198.336
30.0	4087.413	4087.413	4086.630	4087.413	4087.413	4086.943	4086.161
32.5	3827.549	3827.393	3813.469	3827.393	3827.549	3834.589	3804.551
35.0	3226.312	3239.610	3236.012	3239.610	3226.312	3234.604	3209.259
37.5	2523.851	2532.300	2545.598	2532.300	2523.851	2531.674	2495.065
40.0	1865.666	1876.774	1886.631	1876.774	1865.666	1859.095	1824.833
42.5	1230.323	1250.974	1256.763	1250.974	1230.323	1238.458	1207.794
45.0	944.019	941.516	942.298	941.516	944.019	946.679	946.522
47.5	900.057	896.928	898.336	896.928	900.057	903.029	902.560
50.0	852.652	850.462	851.557	850.462	852.652	855.469	854.373
52.5	798.677	797.582	798.364	797.582	798.677	800.868	799.772
55.0	740.947	740.321	741.886	740.321	740.947	743.137	741.729
57.5	682.435	681.809	683.843	681.809	682.435	684.938	683.217
60.0	624.548	623.766	626.269	623.766	624.548	627.052	625.018
62.5	565.880	564.941	567.444	564.941	565.880	566.818	566.505
65.0	506.272	505.646	507.837	505.646	506.272	507.367	506.272
67.5	446.508	445.726	447.760	445.726	446.508	447.291	446.508
70.0	387.057	386.901	388.622	386.901	387.057	388.935	387.527
72.5	328.076	327.763	330.422	327.763	328.076	329.327	329.484
75.0	270.815	270.346	272.849	270.346	270.815	272.067	270.971
77.5	214.962	214.336	216.683	214.336	214.962	215.432	215.275
80.0	159.735	159.266	161.613	159.266	159.735	160.831	159.579

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CANDELA TABULATION - (Cont.)

82.5	106.386	106.073	108.107	106.073	106.386	107.168	107.012
85.0	55.070	55.227	57.417	55.227	55.070	56.478	54.914
87.5	9.700	9.856	11.890	9.856	9.700	10.169	9.543
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
117.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
122.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
127.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1928.05	N.A.	23.40
0-30	3929.74	N.A.	47.70
0-40	5873.00	N.A.	71.20
0-60	7386.04	N.A.	89.60
0-80	8174.46	N.A.	99.20
0-90	8243.15	N.A.	100.00
10-90	7730.99	N.A.	93.80
20-40	3944.95	N.A.	47.90
20-50	4795.41	N.A.	58.20
40-70	2014.27	N.A.	24.40
60-80	788.41	N.A.	9.60
70-80	287.18	N.A.	3.50
80-90	68.69	N.A.	0.80
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	8243.15	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	512.16
10-20	1415.89
20-30	2001.69
30-40	1943.26
40-50	850.46
50-60	662.57
60-70	501.23
70-80	287.18
80-90	68.69
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

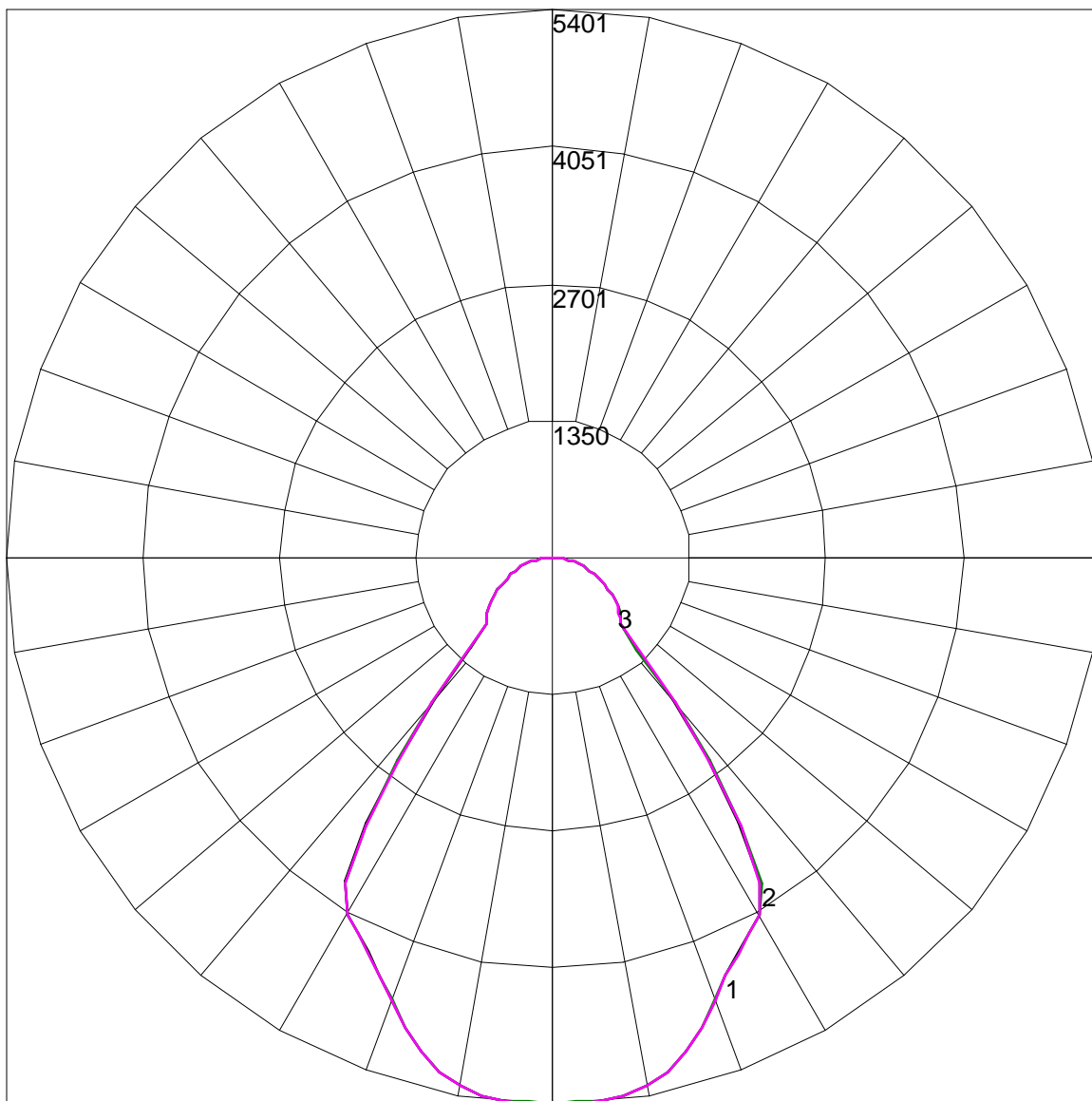
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	63
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51
7	74	62	55	50	72	62	55	50	60	54	49	59	53	49	58	53	49	47
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43
9	66	54	47	42	64	53	47	42	52	46	42	51	46	42	50	45	41	40
10	62	50	44	39	61	50	43	39	49	43	39	48	43	39	47	42	38	37

POLAR GRAPH



Maximum Candela = 5401.123 Located At Horizontal Angle = 67.5, 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)