



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : FLX-14.4-10MM-3528-24-IP20-27K LL-0725 ALU-DFR \_IESNA95.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-1995  
[TEST] 01  
[TESTLAB] LED-123 LAB  
[TESTDATE] 12-15-2020  
[ISSUEDATE] XX-XXX-1995  
[NEARFIELD]  
[LAMPPOSITION] 0,0  
[OTHER] LED123  
[MANUFAC] LED123  
[LUMCAT] FLX-14.4-10MM-3528-24-IP20-27K  
[LUMINAIRE] LL-0725 ALU LL-0725 DFR  
[LAMPCAT] 1  
[LAMP] 3528 180LED CRI90 PCB 10MM  
[BALLAST] DC24V

### CHARACTERISTICS

Lumens Per Lamp	852.9 (1 lamp)
Total Lamp Lumens	852.9
Luminaire Lumens	853
Total Luminaire Efficiency	100 %
Luminaire Efficacy Rating (LER)	60
Total Luminaire Watts	14.1
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	2.10
Spacing Criterion (Diagonal)	1.44
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.00 m
Luminous Width (90-270)	0.02 m
Luminous Height	0.00 m



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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	9142	17167	21994
55	8409	19644	26857
65	7698	23887	34695
75	7687	32144	47507
85	10569	74006	123095

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## CANDELA TABULATION

	<u>0</u>	<u>30</u>	<u>60</u>	<u>90</u>	<u>120</u>	<u>150</u>	<u>180</u>	<u>210</u>	<u>240</u>	<u>270</u>
0	205.208	205.208	205.208	205.208	205.208	205.208	205.208	205.208	205.208	205.208
5	210.110	216.320	219.520	222.400	219.330	215.810	207.420	194.820	184.510	182.400
10	207.550	223.740	235.010	240.640	234.940	223.230	201.600	180.350	164.670	160.700
15	202.560	228.540	248.260	256.830	247.940	227.580	194.050	164.860	143.740	138.620
20	195.070	230.910	259.650	271.620	259.010	229.820	184.510	148.740	123.330	117.380
25	185.980	230.720	268.740	284.350	267.580	229.820	172.610	131.330	103.300	96.770
30	174.530	228.610	275.260	294.530	273.730	227.200	158.780	113.730	84.670	77.700
35	160.510	223.490	279.490	302.660	277.570	221.950	143.810	96.900	68.160	61.820
40	145.090	215.420	281.220	308.290	279.230	214.850	127.420	80.450	53.500	47.940
45	129.340	205.180	280.580	311.170	278.400	205.380	110.460	64.830	41.220	36.990
50	113.280	192.830	277.440	311.170	275.010	193.280	94.210	51.580	31.490	28.100
55	96.510	179.070	271.810	308.220	268.930	179.520	80.380	39.170	23.490	21.180
60	81.090	165.250	263.940	302.400	260.480	164.990	62.210	28.800	17.220	16.000
65	65.090	150.720	253.250	293.380	249.410	149.440	48.510	20.100	12.540	11.900
70	52.290	135.100	237.700	276.100	235.140	134.080	35.460	13.380	8.770	8.900
75	39.810	119.740	213.180	246.020	210.430	118.910	24.060	8.580	6.020	6.460
80	28.350	104.260	184.510	231.740	178.820	103.170	14.530	5.440	4.420	5.060
85	18.430	89.600	168.510	214.660	162.240	87.940	6.400	3.710	3.580	4.100
90	10.050	76.030	159.680	191.810	153.790	73.730	1.790	2.940	3.070	3.580
95	3.140	47.810	110.270	169.600	101.890	45.380	1.600	2.880	3.010	3.460
100	2.300	35.650	105.090	145.410	100.290	33.020	1.340	2.880	3.140	3.650
105	2.240	20.030	83.330	112.190	78.400	18.430	1.410	2.820	3.330	3.840
110	2.300	4.930	50.370	67.650	47.100	4.100	1.600	2.750	3.460	3.970
115	2.110	1.280	23.170	32.830	21.250	1.090	1.660	2.820	3.460	4.100
120	2.110	1.280	8.000	13.310	7.100	1.220	1.860	2.940	3.520	4.160
125	2.370	1.340	2.050	3.580	1.980	1.340	1.980	3.010	3.580	4.160
130	2.620	1.600	1.980	1.150	1.920	1.470	2.110	3.070	3.580	4.220
135	2.690	1.790	1.980	1.280	1.920	1.600	2.240	3.140	3.650	4.160
140	2.820	1.920	2.050	1.410	1.980	1.730	2.370	3.200	3.650	4.160
145	2.880	2.050	2.180	1.600	2.110	1.920	2.500	3.260	3.650	4.100
150	3.010	2.240	2.300	1.790	2.240	2.110	2.620	3.260	3.580	4.030
155	3.070	2.370	2.430	1.980	2.370	2.240	2.750	3.330	3.520	3.900
160	3.140	2.500	2.560	2.180	2.560	2.430	2.820	3.330	3.460	3.780
165	3.200	2.690	2.750	2.370	2.690	2.620	2.940	3.330	3.390	3.650
170	3.260	2.820	2.880	2.620	2.880	2.750	3.010	3.260	3.260	3.520
175	3.260	2.940	3.070	2.880	3.070	2.940	3.140	3.200	3.140	3.330
180	3.127	3.127	3.127	3.127	3.127	3.127	3.127	3.127	3.127	3.127

## Vert. Angles Horizontal Angles

	<u>300</u>	<u>330</u>	<u>360</u>
0	205.208	205.208	205.208
5	183.300	193.020	210.110
10	163.580	179.200	207.550
15	143.170	163.650	202.560
20	123.200	147.520	195.070
25	103.300	130.620	185.980
30	84.860	113.150	174.530
35	68.350	96.190	160.510
40	53.760	79.680	145.090
45	41.340	64.830	129.340
50	31.550	50.940	113.280
55	23.550	38.660	96.510
60	17.220	28.350	81.090
65	12.540	19.780	65.090
70	8.640	13.250	52.290
75	5.820	8.640	39.810
80	4.100	5.570	28.350

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : FLX-14.4-10MM-3528-24-IP20-27K LL-0725 ALU-DFR \_IESNA95.IES****CANDELA TABULATION - (Cont.)**

<b>85</b>	3.460	3.970	18.430
<b>90</b>	2.940	3.260	10.050
<b>95</b>	2.940	3.140	3.140
<b>100</b>	3.140	3.070	2.300
<b>105</b>	3.260	2.940	2.240
<b>110</b>	3.390	2.880	2.300
<b>115</b>	3.520	3.010	2.110
<b>120</b>	3.650	3.070	2.110
<b>125</b>	3.710	3.200	2.370
<b>130</b>	3.780	3.260	2.620
<b>135</b>	3.780	3.330	2.690
<b>140</b>	3.780	3.390	2.820
<b>145</b>	3.780	3.390	2.880
<b>150</b>	3.710	3.390	3.010
<b>155</b>	3.650	3.390	3.070
<b>160</b>	3.580	3.390	3.140
<b>165</b>	3.460	3.330	3.200
<b>170</b>	3.330	3.260	3.260
<b>175</b>	3.200	3.200	3.260
<b>180</b>	3.127	3.127	3.127

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : FLX-14.4-10MM-3528-24-IP20-27K LL-0725 ALU-DFR \_IESNA95.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	74.94	8.80	8.80
0-30	159.70	18.70	18.70
0-40	264.16	31.00	31.00
0-60	492.43	57.70	57.70
0-80	687.68	80.60	80.60
0-90	757.80	88.80	88.90
10-90	738.41	86.60	86.60
20-40	189.23	22.20	22.20
20-50	303.25	35.60	35.60
40-70	334.45	39.20	39.20
60-80	195.25	22.90	22.90
70-80	89.06	10.40	10.40
80-90	70.13	8.20	8.20
90-110	76.69	9.00	9.00
90-120	86.00	10.10	10.10
90-130	88.78	10.40	10.40
90-150	92.56	10.90	10.90
90-180	95.06	11.10	11.10
110-180	18.37	2.20	2.20
0-180	852.86	100.00	100.00

Total Luminaire Efficiency = 100.00%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	19.39
10-20	55.54
20-30	84.77
30-40	104.46
40-50	114.02
50-60	114.25
60-70	106.19
70-80	89.06
80-90	70.13
90-100	48.03
100-110	28.67
110-120	9.31
120-130	2.77
130-140	2.04
140-150	1.75
150-160	1.35
160-170	0.86
170-180	0.30

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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	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92	89
1	103	97	91	86	99	93	88	84	87	83	79	81	78	74	75	73	70	67
2	92	82	74	68	88	80	72	66	74	68	63	69	64	59	64	60	56	53
3	83	71	62	55	80	69	60	54	64	57	51	60	54	49	56	51	47	44
4	76	63	53	46	73	61	52	45	57	49	43	53	46	41	49	44	39	37
5	70	56	46	39	67	54	45	38	50	43	37	47	40	35	44	38	34	31
6	64	50	40	33	61	48	39	33	45	37	32	42	36	31	40	34	29	27
7	59	45	36	29	57	44	35	29	41	33	28	39	32	27	36	30	26	24
8	55	41	32	26	53	40	31	26	37	30	25	35	29	24	33	27	23	21
9	51	37	29	23	49	36	28	23	34	27	22	33	26	21	31	25	21	19
10	48	34	26	21	46	34	26	21	32	25	20	30	24	19	29	23	19	17

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## UGR TABLE - CORRECTED

### Reflectances

Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

### Room Size UGR Viewed Crosswise

X=2H	Y=2H	18.6	20.1	19.1	20.6	21.2	25.4	26.9	25.9	27.4	28.0
	3H	20.5	21.9	21.0	22.4	23.0	28.7	30.1	29.2	30.6	31.2
	4H	21.3	22.6	21.8	23.2	23.8	30.3	31.6	30.8	32.2	32.8
	6H	22.0	23.2	22.6	23.8	24.4	32.0	33.3	32.6	33.8	34.5
	8H	22.3	23.5	22.9	24.1	24.7	33.0	34.2	33.6	34.8	35.4
	12H	22.6	23.8	23.2	24.3	25.0	34.1	35.2	34.7	35.8	36.5

### UGR Viewed Endwise

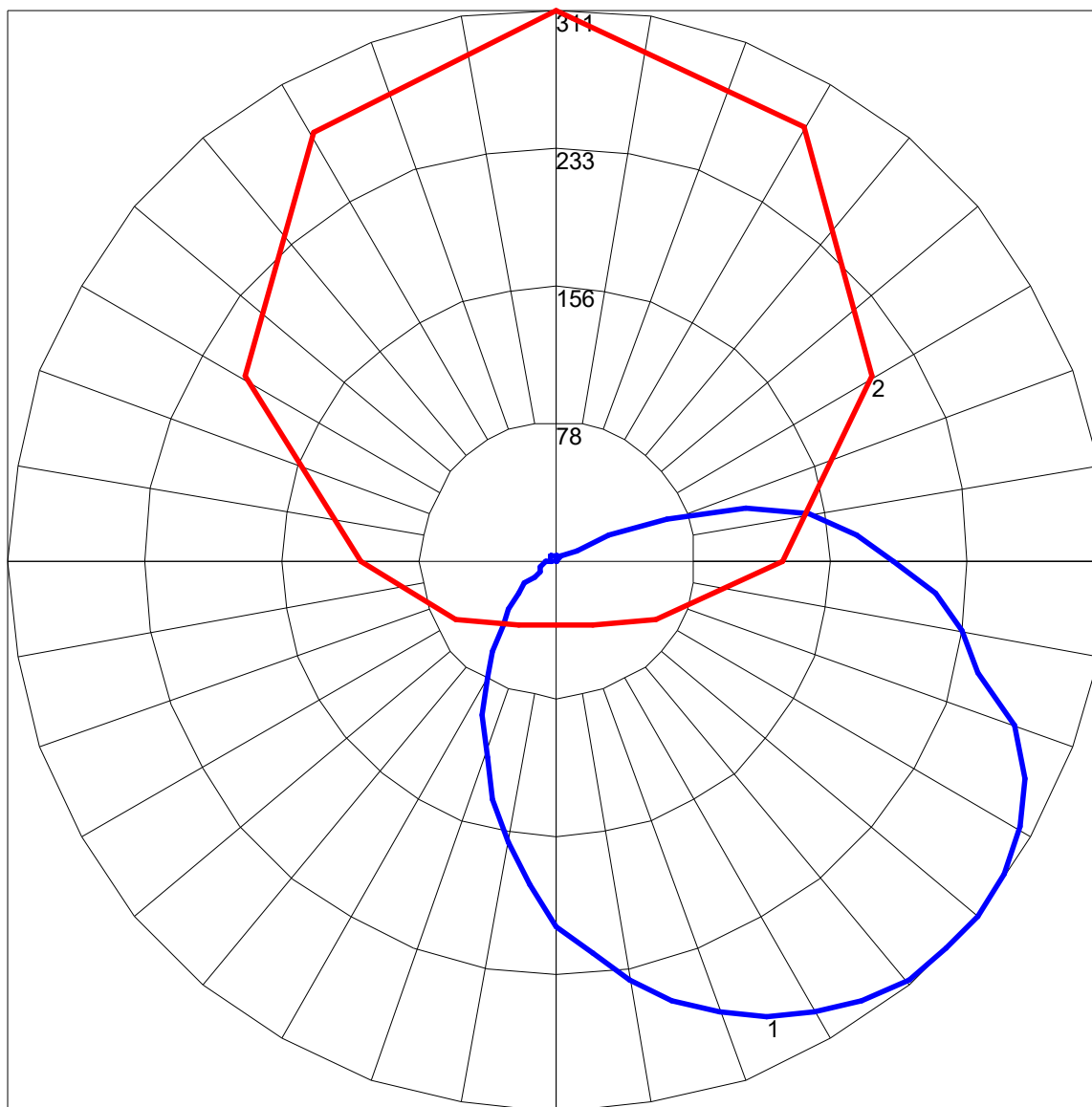
4H	2H	20.5	21.9	21.1	22.4	23.0	25.9	27.2	26.5	27.8	28.4
	3H	22.7	23.8	23.3	24.4	25.1	29.6	30.7	30.1	31.3	32.0
	4H	23.7	24.7	24.3	25.3	26.0	31.4	32.4	32.0	33.0	33.7
	6H	24.6	25.5	25.2	26.1	26.8	33.3	34.3	33.9	34.9	35.6
	8H	24.9	25.8	25.5	26.5	27.2	34.4	35.3	35.0	35.9	36.6
	12H	25.3	26.1	25.9	26.8	27.5	35.7	36.5	36.3	37.1	37.8
8H	4H	25.3	26.2	25.9	26.8	27.5	31.7	32.6	32.3	33.2	33.9
	6H	26.5	27.3	27.2	28.0	28.7	33.9	34.7	34.6	35.4	36.1
	8H	27.1	27.8	27.8	28.5	29.2	35.2	35.9	35.9	36.6	37.3
	12H	27.7	28.3	28.3	29.0	29.7	36.8	37.4	37.4	38.0	38.8
12H	4H	25.9	26.7	26.5	27.3	28.0	31.8	32.6	32.4	33.2	33.9
	6H	27.3	28.0	28.0	28.6	29.4	34.1	34.8	34.7	35.4	36.2
	8H	28.1	28.7	28.7	29.4	30.1	35.5	36.1	36.1	36.7	37.5

Maximum UGR = 38.8

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## POLAR GRAPH



Maximum Candela = 311.17 Located At Horizontal Angle = 90, Vertical Angle = 45

# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)

# 2 - Horizontal Cone Through Vertical Angle (45) (Through Max. Cd.)