



IES INDOOR REPORT
PHOTOMETRIC FILENAME : HES-22-L30-835-A-DIM-UNV.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]GEN FROM G100669206
[TESTLAB]Intertek
[ISSUEDATE] 03/18/2019
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
[LUMCAT] HES-22-L30-835-A-DIM-UNV
[LUMINAIRE] 2X2 SURFACE MOUNT LED LUMINAIRE
[MORE] WITH CENTER FROSTED LENSES
[LAMP] LED
[LAMPCAT] HLM 80 CRI 3500K CCT
[_SEARCH_APPLICATION] INDOOR
[_SEARCH_SOURCETYPE] LED
[_SEARCH_MOUNTING] SURFACE

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3090
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	26.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.83 ft
Luminous Width (90-270)	1.96 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3043	3155	3263
55	2513	2749	2802
65	1968	2296	1881
75	1489	1584	1062
85	926	508	252

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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>
0.0	1326.766	1326.766	1326.766	1326.766	1326.766
2.5	1330.239	1329.844	1327.003	1321.636	1318.084
5.0	1324.320	1324.241	1322.741	1314.927	1312.954
7.5	1315.085	1315.559	1312.244	1305.377	1303.562
10.0	1300.799	1301.825	1300.247	1294.801	1291.959
12.5	1284.146	1285.803	1285.566	1279.726	1277.831
15.0	1261.336	1265.913	1265.282	1260.862	1259.283
17.5	1234.895	1239.473	1240.499	1238.841	1236.316
20.0	1204.824	1208.849	1211.533	1208.849	1209.954
22.5	1168.438	1173.016	1177.436	1178.699	1176.331
25.0	1128.659	1133.395	1138.130	1139.393	1139.393
27.5	1086.275	1092.037	1097.167	1100.482	1099.851
30.0	1040.103	1047.206	1053.836	1058.966	1060.150
32.5	993.141	1000.560	1007.743	1014.688	1019.029
35.0	944.206	951.546	960.070	969.147	973.646
37.5	891.088	898.823	908.373	918.870	925.106
40.0	834.813	844.442	854.939	868.831	874.908
42.5	776.959	787.378	800.085	814.371	822.579
45.0	717.606	729.524	744.047	760.858	769.461
47.5	657.227	669.224	687.219	705.136	715.554
50.0	592.112	609.792	631.733	650.044	659.752
52.5	537.100	551.622	577.905	596.216	601.267
55.0	480.667	496.136	525.892	537.889	535.995
57.5	426.128	442.624	476.089	478.693	467.486
60.0	373.326	391.242	426.917	413.184	397.162
62.5	323.444	341.992	375.536	349.726	327.232
65.0	277.350	296.608	323.680	287.926	265.195
67.5	234.887	254.382	272.378	231.888	209.157
70.0	196.134	216.182	223.522	182.164	161.090
72.5	160.933	180.033	178.612	139.780	122.811
75.0	128.572	144.674	136.781	103.079	91.713
77.5	98.738	109.788	98.343	73.639	66.615
80.0	71.903	78.138	64.878	49.408	44.436
82.5	48.067	49.172	36.385	27.467	22.889
85.0	26.914	23.678	14.759	10.892	7.340
87.5	8.840	5.604	2.999	1.973	0.868
90.0	0.000	0.000	0.000	0.000	0.000
92.5	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000
107.5	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000
112.5	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000
117.5	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000
122.5	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000
127.5	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000

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CANDELA TABULATION - (Cont.)

135.0	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.079	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000
162.5	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.079	0.000
172.5	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.158
177.5	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	481.08	N.A.	15.60
0-30	1004.08	N.A.	32.50
0-40	1603.15	N.A.	51.90
0-60	2638.69	N.A.	85.40
0-80	3066.13	N.A.	99.20
0-90	3090.3	N.A.	100.00
10-90	2964.99	N.A.	95.90
20-40	1122.07	N.A.	36.30
20-50	1695.57	N.A.	54.90
40-70	1329.62	N.A.	43.00
60-80	427.44	N.A.	13.80
70-80	133.35	N.A.	4.30
80-90	24.17	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	3090.3	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	125.31
10-20	355.77
20-30	523.00
30-40	599.07
40-50	573.50
50-60	462.04
60-70	294.09
70-80	133.35
80-90	24.17
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

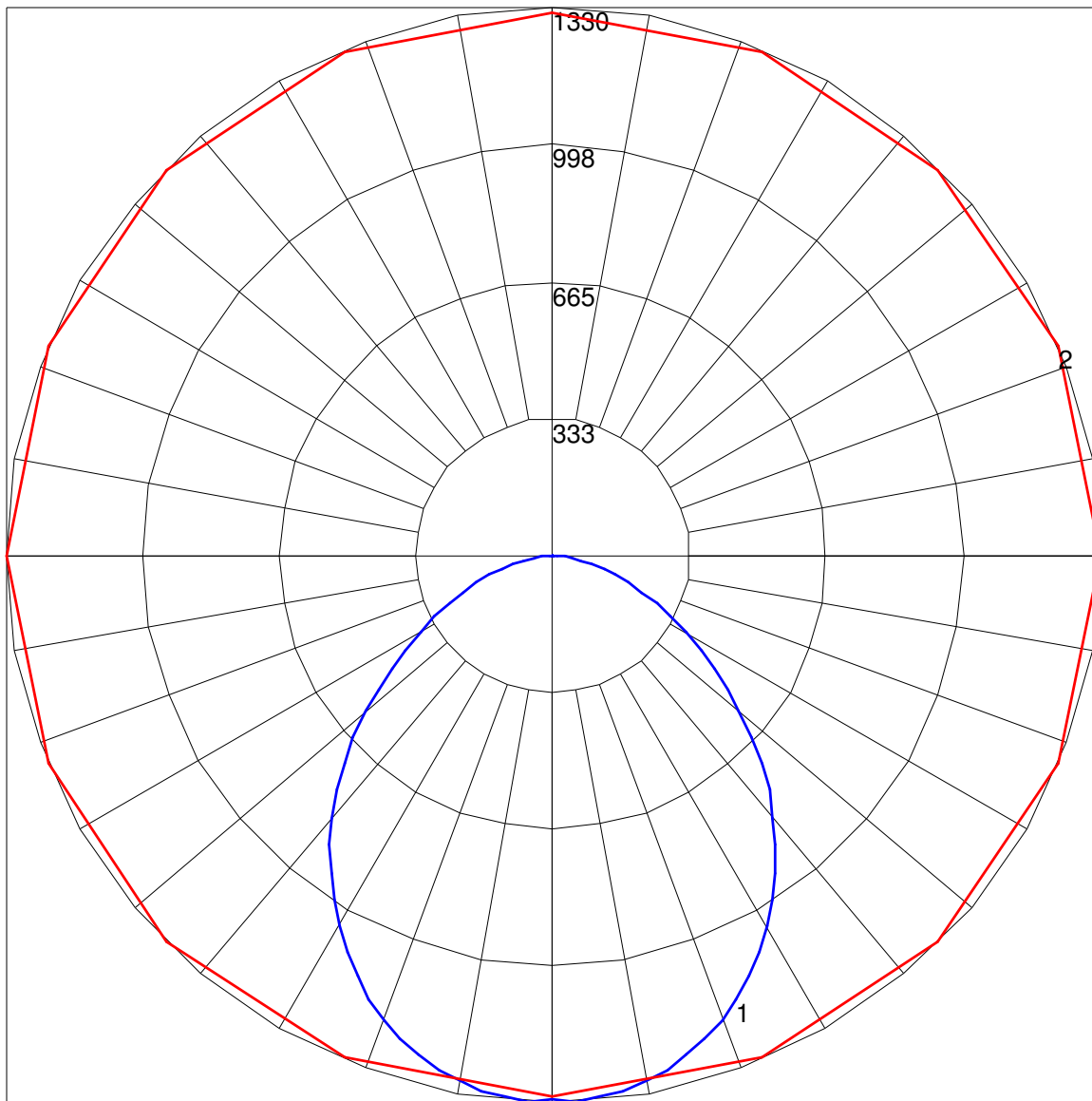
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	110	106	102	99	107	104	100	97	99	96	94	95	93	91	92	90	88	86
2	101	93	87	82	98	92	86	81	88	83	79	85	81	77	82	79	76	74
3	93	83	75	69	90	81	74	69	78	72	67	76	71	66	73	69	65	63
4	85	74	66	60	83	73	65	59	70	64	58	68	62	58	66	61	57	55
5	79	67	58	52	77	65	57	52	63	56	51	61	55	50	60	54	50	48
6	73	60	52	46	71	59	51	45	58	50	45	56	50	45	54	49	44	42
7	68	55	46	41	66	54	46	40	53	45	40	51	45	40	50	44	40	38
8	63	50	42	36	62	50	42	36	48	41	36	47	41	36	46	40	36	34
9	59	46	38	33	58	46	38	33	45	38	33	43	37	33	42	37	32	31
10	56	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	30	28

POLAR GRAPH



Maximum Candela = 1330.239 Located At Horizontal Angle = 0, Vertical Angle = 2.5

1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)

2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)