H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L45-927-RA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19323.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2023-06-23
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 1x4'RECESSED LED LUMINAIRE
[MORE] WHITE REFLECTOR w/WHITE RIBBED ACRYLIC LENS
[MORE] 0-10V LED DRIVER
[LUMCAT] PT-14-L45-927-RA-DIM-UNV
[LAMPCAT] 22" LED ARRAYS
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Architectural, Office, Direct
[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3539
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	30.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 ft
Luminous Width (90-270)	0.94 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3312	3460	3510
55	2923	3212	3349
65	2544	3015	3093
75	1848	2589	2699
85	842	1386	1630

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1289.748	1289.748	1289.748	1289.748	1289.748
5	1318.876	1309.167	1304.312	1292.175	1284.893
10	1296.221	1288.939	1286.511	1273.565	1267.092
15	1260.619	1254.146	1257.383	1242.009	1242.009
20	1209.644	1207.217	1212.881	1198.317	1203.171
25	1153.006	1147.342	1158.669	1148.151	1144.914
30	1086.657	1076.138	1092.321	1086.657	1085.039
35	1003.317	995.226	1016.263	1012.217	1017.072
40	906.222	904.604	927.259	930.496	926.450
45	800.226	802.654	835.828	843.110	847.965
50	687.758	699.895	734.687	752.488	752.488
55	572.862	595.517	629.501	664.293	656.202
60	469.293	488.713	529.169	557.488	553.443
65	367.344	384.335	435.310	455.538	446.638
70	262.157	293.713	335.788	345.497	341.451
75	163.444	205.518	228.983	238.692	238.692
80	83.340	122.178	131.079	138.361	132.697
85	25.083	47.738	41.265	45.311	48.548
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	476.27	N.A.	13.50
0-30	1006.45	N.A.	28.40
0-40	1636.46	N.A.	46.20
0-60	2833.02	N.A.	80.00
0-80	3481.86	N.A.	98.40
0-90	3539.14	N.A.	100.00
10-90	3415.7	N.A.	96.50
20-40	1160.19	N.A.	32.80
20-50	1797.34	N.A.	50.80
40-70	1612.93	N.A.	45.60
60-80	648.83	N.A.	18.30
70-80	232.47	N.A.	6.60
80-90	57.28	N.A.	1.60
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	3539.14	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	123.44
10-20	352.83
20-30	530.17
30-40	630.01
40-50	637.15
50-60	559.41
60-70	416.37
70-80	232.47
80-90	57.28
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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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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					UGR Viewed Endwise				
X=2H	Y=2H	15.7	17.3	16.0	17.6	17.9	16.5	18.1	16.9	18.5	18.8
	3H	17.2	18.7	17.6	19.0	19.4	18.3	19.8	18.7	20.1	20.5
	4H	17.7	19.1	18.1	19.5	19.8	19.0	20.3	19.4	20.7	21.1
	6H	18.0	19.3	18.5	19.7	20.1	19.4	20.7	19.8	21.0	21.4
	8H	18.1	19.3	18.5	19.7	20.1	19.5	20.7	19.9	21.1	21.5
	12H	18.1	19.3	18.6	19.7	20.1	19.6	20.8	20.0	21.1	21.6
4H	2H	16.4	17.8	16.8	18.1	18.5	17.1	18.5	17.5	18.8	19.2
	3H	18.2	19.4	18.6	19.8	20.2	19.1	20.3	19.5	20.7	21.1
	4H	18.9	19.9	19.3	20.3	20.8	19.9	20.9	20.3	21.4	21.8
	6H	19.3	20.2	19.8	20.7	21.1	20.5	21.4	20.9	21.8	22.3
	8H	19.4	20.3	19.9	20.7	21.2	20.6	21.5	21.1	21.9	22.4
	12H	19.5	20.3	20.0	20.7	21.2	20.7	21.5	21.2	22.0	22.5
8H	4H	19.3	20.1	19.7	20.6	21.0	20.2	21.0	20.6	21.5	21.9
	6H	19.9	20.6	20.3	21.0	21.5	20.9	21.6	21.4	22.1	22.5
	8H	20.0	20.7	20.5	21.2	21.7	21.1	21.7	21.6	22.2	22.7
	12H	20.2	20.7	20.7	21.2	21.8	21.2	21.8	21.7	22.3	22.9
12H	4H	19.3	20.1	19.8	20.6	21.0	20.2	21.0	20.7	21.4	21.9
	6H	19.9	20.6	20.4	21.0	21.6	20.9	21.5	21.4	22.0	22.5
	8H	20.2	20.7	20.7	21.2	21.8	21.2	21.7	21.7	22.2	22.8

Maximum UGR = 22.9

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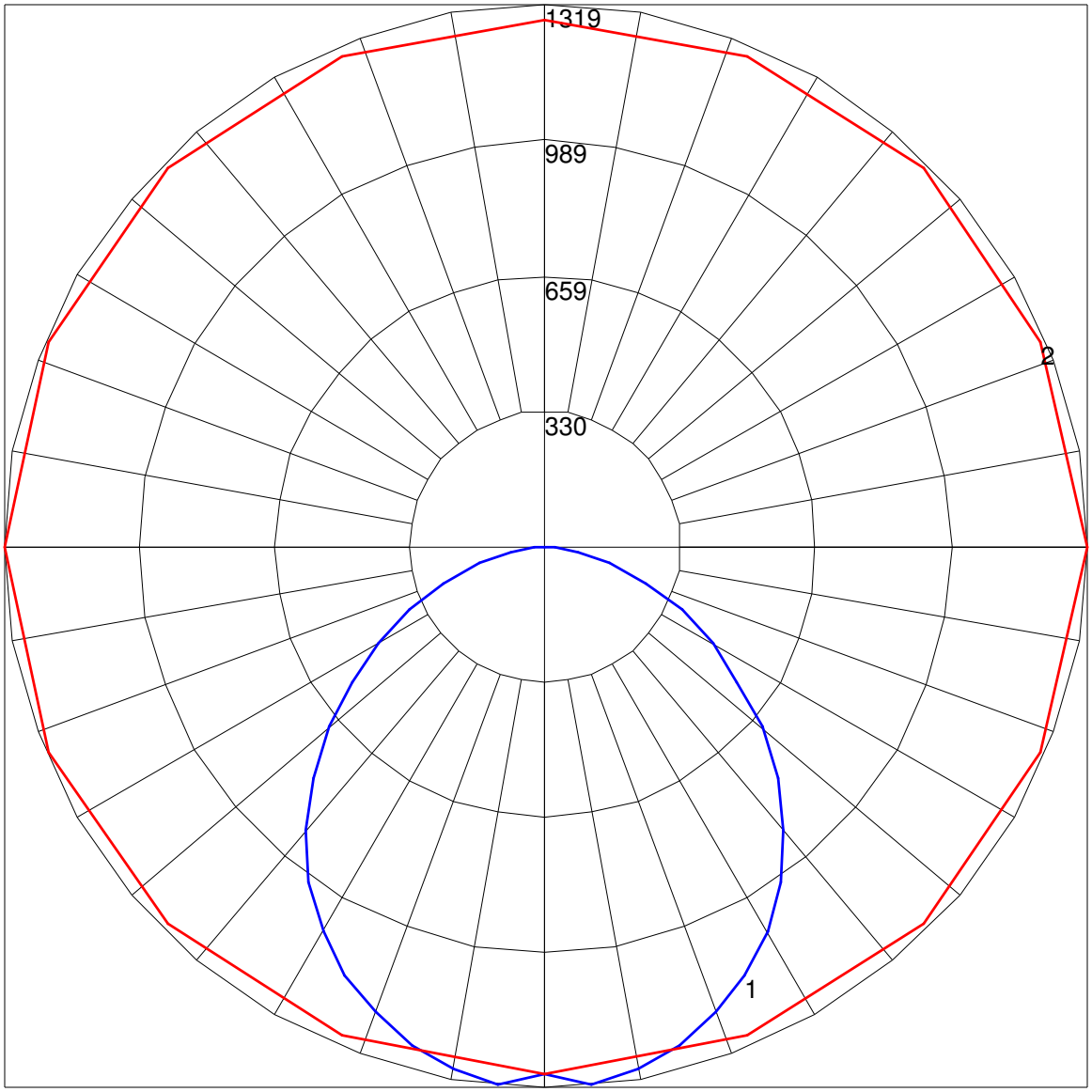
POLAR GRAPH



Maximum Candela = 1318.876 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

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