H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-24-P65-840-RA-(P50)-POE PR_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19235.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 24 JAN 2022
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2 X 4 LED RECESSED LUMINAIRE
[MORE] WHITE REFLECTOR w/RIBBED FROSTED ACRYLIC CENTER DIFFUSER
[LUMCAT] PT-24-P65-840-RA-(P50)-POE PR
[LAMPCAT] HLM 80 CRI LED BOARDS
[_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	5167
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	158
Total Luminaire Watts	32.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 ft
Luminous Width (90-270)	1.92 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2216	2338	2458
55	1986	2174	2348
65	1746	2069	2350
75	1351	2075	2568
85	816	2722	3119

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1976.782	1976.782	1976.782	1976.782	1976.782
5	1946.597	1943.914	1943.914	1937.206	1933.852
10	1940.560	1940.560	1943.914	1946.597	1946.597
15	1889.581	1892.264	1895.618	1900.313	1903.667
20	1764.816	1771.524	1779.573	1790.305	1793.659
25	1664.870	1670.907	1687.006	1701.092	1707.800
30	1458.941	1413.999	1597.792	1544.801	1536.752
35	1345.580	1358.325	1388.510	1413.999	1424.061
40	1197.338	1213.437	1246.976	1280.514	1293.259
45	1094.038	1108.125	1154.408	1197.338	1213.437
50	950.492	972.628	1023.607	1068.549	1083.977
55	795.542	819.690	870.669	921.648	940.430
60	648.642	674.132	731.818	784.139	803.592
65	515.157	548.696	610.408	671.448	693.584
70	379.660	419.236	492.351	556.745	578.881
75	244.163	293.130	374.965	440.030	464.178
80	134.156	197.879	291.788	355.512	374.965
85	49.638	113.361	165.682	186.476	189.830
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	716.58	N.A.	13.90
0-30	1485.11	N.A.	28.70
0-40	2351.45	N.A.	45.50
0-60	4015.76	N.A.	77.70
0-80	5012.61	N.A.	97.00
0-90	5167.13	N.A.	100.00
10-90	4981.31	N.A.	96.40
20-40	1634.87	N.A.	31.60
20-50	2518.51	N.A.	48.70
40-70	2266.95	N.A.	43.90
60-80	996.84	N.A.	19.30
70-80	394.21	N.A.	7.60
80-90	154.52	N.A.	3.00
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	5167.13	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	185.82
10-20	530.76
20-30	768.53
30-40	866.34
40-50	883.64
50-60	780.67
60-70	602.64
70-80	394.21
80-90	154.52
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	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	85	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	46	40	51	45	40	38
7	65	52	43	37	63	51	42	37	49	42	36	48	41	36	46	40	36	34
8	61	47	39	33	59	46	38	33	45	38	32	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	33	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	14.0	15.7	14.4	16.0	16.3	15.1	16.7	15.4	17.0	17.3
	3H	15.7	17.2	16.1	17.5	17.9	17.2	18.7	17.6	19.1	19.4
	4H	16.3	17.7	16.7	18.0	18.4	18.2	19.6	18.6	20.0	20.4
	6H	16.6	18.0	17.1	18.3	18.7	19.3	20.6	19.7	20.9	21.3
	8H	16.8	18.0	17.2	18.4	18.8	19.7	20.9	20.1	21.3	21.7
	12H	16.8	18.0	17.3	18.4	18.8	20.0	21.2	20.5	21.6	22.0
4H	2H	14.8	16.2	15.2	16.6	17.0	15.6	17.0	16.0	17.4	17.7
	3H	16.7	17.9	17.2	18.3	18.7	18.1	19.3	18.5	19.7	20.0
	4H	17.4	18.5	17.9	18.9	19.4	19.2	20.3	19.7	20.7	21.2
	6H	18.0	18.9	18.4	19.4	19.8	20.5	21.4	20.9	21.9	22.3
	8H	18.1	19.0	18.6	19.5	19.9	21.0	21.9	21.5	22.3	22.8
	12H	18.3	19.1	18.8	19.5	20.0	21.4	22.2	21.9	22.7	23.2
8H	4H	18.0	18.9	18.5	19.4	19.8	19.6	20.5	20.0	20.9	21.4
	6H	18.8	19.5	19.3	20.0	20.5	21.0	21.8	21.5	22.3	22.7
	8H	19.1	19.7	19.6	20.2	20.7	21.7	22.4	22.2	22.9	23.3
	12H	19.3	19.9	19.8	20.4	20.9	22.3	22.8	22.8	23.3	23.9
12H	4H	18.2	19.0	18.7	19.5	19.9	19.6	20.4	20.1	20.9	21.4
	6H	19.0	19.7	19.6	20.2	20.7	21.1	21.8	21.7	22.3	22.8
	8H	19.4	20.0	19.9	20.5	21.1	21.9	22.4	22.4	22.9	23.5

Maximum UGR = 23.9

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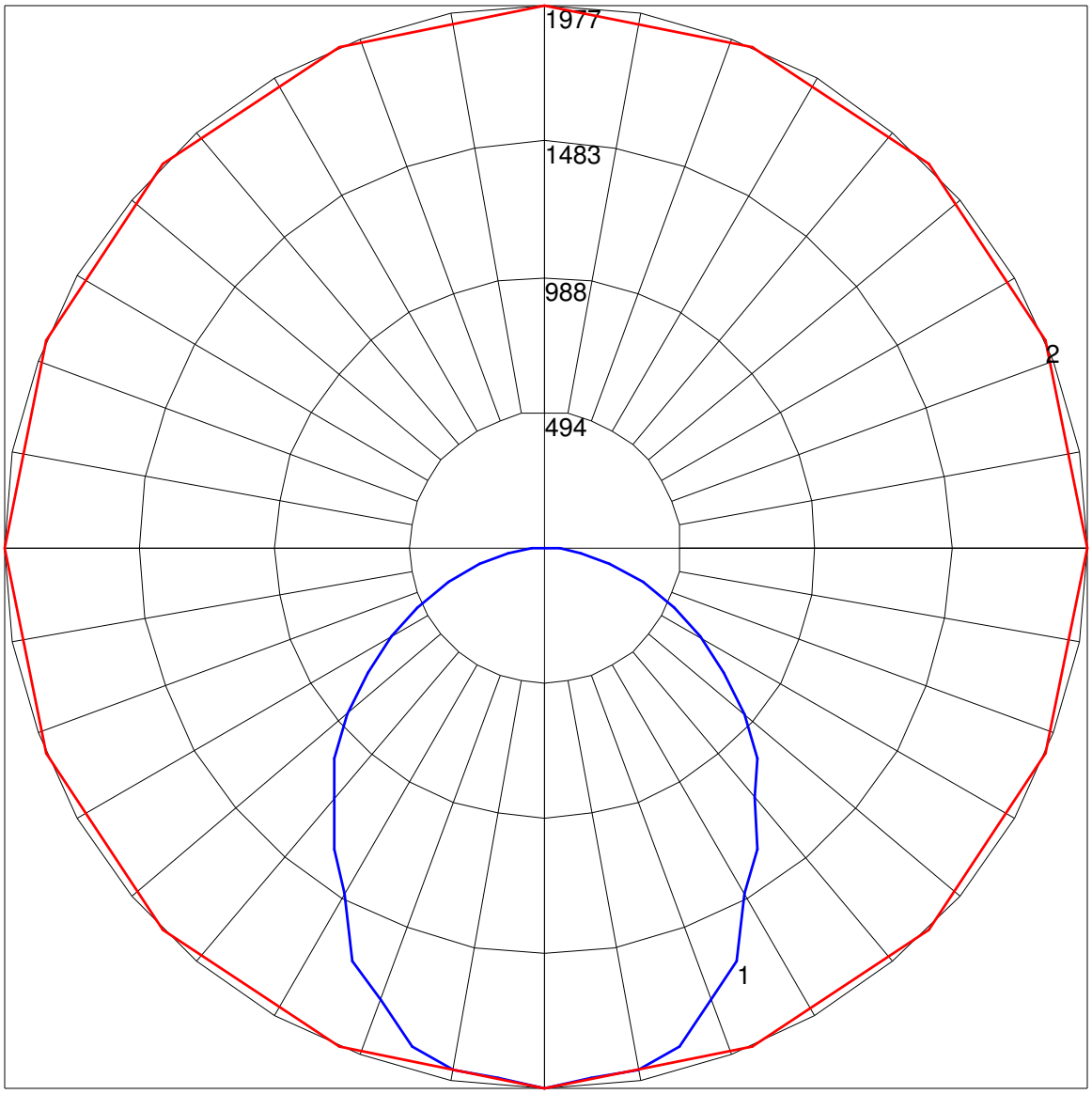
POLAR GRAPH



Maximum Candela = 1976.782 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

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