H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 76R-4-L52-940-(L50) EM10W-DIM-UNV_EMER MODE ONLY.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN from BALLABS TEST NO. 20990.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 04-04-2024
[MANUFAC] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 72 LED 23.75", 68 LED 22.375"ARRAYS 4' 76R SURFACE LUMINAIRE
[MORE] WHITE REFLECTOR w/RADIAL RIBBED FROST ACRYLIC LENS
[LUMCAT] 76R-4-L52-940-(L50)-EM10W-DIM-UNV

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1250
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	125
Total Luminaire Watts	10
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.98 ft
Luminous Width (90-270)	0.38 ft
Luminous Height	0.15 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2187	2004	2057
55	1865	1737	1829
65	1500	1439	1584
75	1164	1220	1368
85	546	1100	1274

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	403.650	403.650	403.650	403.650	403.650
5	407.034	401.698	400.656	400.656	399.485
10	399.615	395.059	395.319	396.361	395.059
15	386.208	382.693	385.557	388.681	388.290
20	368.895	367.463	372.149	377.877	378.137
25	344.944	346.506	354.967	362.517	364.470
30	319.692	322.425	334.531	344.294	348.068
35	288.191	294.569	310.580	323.337	327.762
40	258.123	265.021	284.286	302.119	306.285
45	222.457	232.479	255.910	275.175	280.381
50	189.134	201.500	227.143	248.360	254.087
55	156.201	168.307	197.725	219.723	226.492
60	124.961	138.629	168.827	189.134	196.814
65	94.892	109.341	138.889	164.792	170.390
70	70.030	82.787	113.767	138.889	145.527
75	47.511	61.699	93.070	115.589	120.535
80	26.424	43.736	74.456	94.892	101.921
85	9.372	29.548	59.096	78.101	83.958
90	0.000	19.525	46.079	64.693	68.468
95	0.000	12.496	36.317	52.978	58.706
100	0.000	8.331	27.856	43.867	48.422
105	0.000	5.597	21.998	35.406	40.482
110	0.000	2.603	17.442	29.027	33.844
115	0.000	1.692	13.928	24.472	27.856
120	0.000	0.000	11.064	20.046	23.560
125	0.000	0.000	8.591	16.011	18.744
130	0.000	0.000	6.769	12.626	14.969
135	0.000	0.000	5.467	9.763	11.975
140	0.000	0.000	2.864	7.420	9.112
145	0.000	0.000	1.041	5.727	6.639
150	0.000	0.000	0.000	4.946	5.597
155	0.000	0.000	0.000	4.686	4.946
160	0.000	0.000	0.000	2.734	4.556
165	0.000	0.000	0.000	0.911	1.562
170	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	147.09	N.A.	11.80
0-30	310.50	N.A.	24.80
0-40	504.03	N.A.	40.30
0-60	874.15	N.A.	69.90
0-80	1104.24	N.A.	88.30
0-90	1163.44	N.A.	93.10
10-90	1125.28	N.A.	90.00
20-40	356.95	N.A.	28.60
20-50	553.07	N.A.	44.20
40-70	505.83	N.A.	40.50
60-80	230.09	N.A.	18.40
70-80	94.37	N.A.	7.50
80-90	59.20	N.A.	4.70
90-110	58.53	N.A.	4.70
90-120	72.01	N.A.	5.80
90-130	79.76	N.A.	6.40
90-150	85.56	N.A.	6.80
90-180	86.51	N.A.	6.90
110-180	27.99	N.A.	2.20
0-180	1249.95	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	38.16
10-20	108.93
20-30	163.42
30-40	193.53
40-50	196.13
50-60	173.99
60-70	135.72
70-80	94.37
80-90	59.20
90-100	36.23
100-110	22.29
110-120	13.49
120-130	7.75
130-140	4.10
140-150	1.70
150-160	0.79
160-170	0.16
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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	93
1	106	101	96	92	102	98	93	90	92	89	85	87	84	82	82	80	78	75
2	96	87	80	74	93	85	78	73	80	75	70	76	71	67	72	68	65	62
3	88	77	68	61	84	74	67	60	70	64	58	67	61	57	63	59	55	52
4	80	68	59	52	77	66	58	51	63	55	50	59	53	48	57	51	47	45
5	74	61	51	45	71	59	51	44	56	49	43	53	47	42	51	45	41	39
6	68	55	46	39	66	53	45	39	51	43	38	48	42	37	46	40	36	34
7	63	49	41	34	61	48	40	34	46	39	33	44	38	33	42	36	32	30
8	59	45	37	31	57	44	36	30	42	35	30	40	34	29	39	33	29	27
9	55	41	33	28	53	41	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	24	22

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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	11.7	13.2	12.1	13.6	14.1	14.7	16.2	15.2	16.6	17.1
	3H	12.9	14.2	13.4	14.7	15.2	16.9	18.3	17.4	18.8	19.3
	4H	13.3	14.6	13.8	15.0	15.6	18.0	19.3	18.5	19.8	20.3
	6H	13.5	14.7	14.0	15.2	15.7	19.1	20.3	19.6	20.8	21.3
	8H	13.5	14.7	14.1	15.2	15.8	19.7	20.8	20.2	21.3	21.9
	12H	13.5	14.6	14.1	15.2	15.8	20.3	21.4	20.8	21.9	22.5
4H	2H	12.6	13.9	13.1	14.4	14.9	15.0	16.3	15.5	16.8	17.3
	3H	14.1	15.2	14.6	15.7	16.3	17.5	18.6	18.0	19.1	19.7
	4H	14.6	15.6	15.1	16.1	16.7	18.7	19.7	19.2	20.3	20.9
	6H	14.9	15.8	15.4	16.3	17.0	20.0	20.9	20.6	21.5	22.1
	8H	15.0	15.8	15.5	16.4	17.0	20.7	21.5	21.2	22.1	22.7
	12H	15.0	15.8	15.6	16.4	17.0	21.4	22.2	22.0	22.8	23.4
8H	4H	15.3	16.1	15.9	16.7	17.3	18.9	19.7	19.4	20.3	20.9
	6H	15.8	16.5	16.4	17.1	17.8	20.3	21.0	20.9	21.6	22.3
	8H	16.0	16.6	16.6	17.2	17.9	21.1	21.8	21.7	22.4	23.0
	12H	16.1	16.7	16.7	17.3	18.0	22.1	22.6	22.7	23.2	23.9
12H	4H	15.5	16.3	16.1	16.9	17.5	18.9	19.6	19.5	20.2	20.9
	6H	16.1	16.8	16.8	17.4	18.0	20.4	21.0	21.0	21.6	22.3
	8H	16.4	17.0	17.0	17.6	18.3	21.2	21.8	21.8	22.4	23.1

Maximum UGR = 23.9

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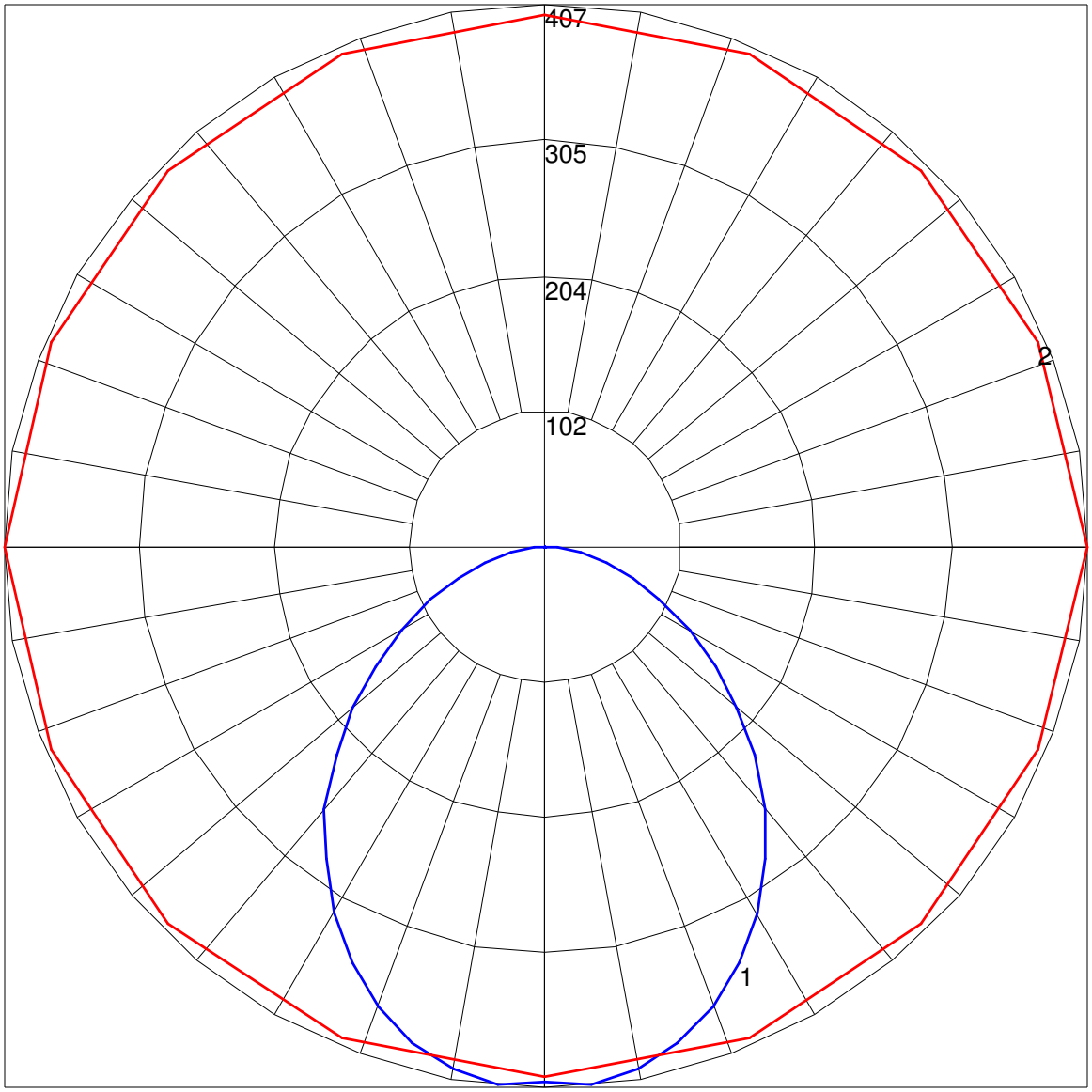
POLAR GRAPH



Maximum Candela = 407.034 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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