



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4PS-L12-9DW-DIM-UNV-LW-OF-WH 3000K_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]GEN from BALLABS TEST NO. 20339.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 13-DEC-2019

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO

[LUMINAIRE] GEN7 V18 LED 4" TALL HEATSINK 4" SQ FORMED HOUSING DOWNLIGHT

[MORE] 4" CAST SHALLOW WHITE FLUSH TRIM w/SOLITE LENS

[LUMCAT] 4PS-L12-9DW-DIM-UNV-LW-OF-WH 3000k

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Classroom, Commercial, Office, Direct, Downlight

[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1321
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	56
Total Luminaire Watts	23.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.24
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.33 ft
Luminous Width (90-270)	0.33 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	29359	45249	28347
55	20729	23279	19915
65	15319	15098	14950
75	10583	10462	10462
85	4642	4285	3571

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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	743.303	743.303	743.303	743.303	743.303
5	742.982	740.415	739.131	738.810	738.810
10	734.317	730.144	729.503	726.935	725.972
15	716.344	711.530	712.814	710.567	710.567
20	698.050	693.236	690.668	692.915	694.199
25	669.807	668.844	671.412	668.203	662.746
30	601.446	617.815	634.824	613.321	584.436
35	475.958	523.457	566.143	516.397	462.478
40	334.743	373.256	459.590	380.317	314.524
45	214.069	242.633	329.929	244.558	206.687
50	157.583	168.495	210.217	170.100	153.411
55	122.600	125.489	137.684	128.056	117.786
60	89.864	92.431	94.999	92.431	90.185
65	66.756	65.472	65.793	67.719	65.151
70	45.574	45.574	43.648	45.895	44.611
75	28.243	28.564	27.922	27.601	27.922
80	15.084	15.084	14.763	13.801	14.763
85	4.172	3.209	3.851	3.209	3.209
90	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4PS-L12-9DW-DIM-UNV-LW-OF-WH 3000K_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	271.59	N.A.	20.60
0-30	576.85	N.A.	43.70
0-40	894.47	N.A.	67.70
0-60	1217.72	N.A.	92.20
0-80	1315.00	N.A.	99.60
0-90	1320.89	N.A.	100.00
10-90	1250.61	N.A.	94.70
20-40	622.88	N.A.	47.20
20-50	829.11	N.A.	62.80
40-70	390.00	N.A.	29.50
60-80	97.29	N.A.	7.40
70-80	30.53	N.A.	2.30
80-90	5.88	N.A.	0.40
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	1320.89	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	70.28
10-20	201.31
20-30	305.26
30-40	317.62
40-50	206.23
50-60	117.01
60-70	66.76
70-80	30.53
80-90	5.88
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	80	80	80	80	79	79	79	79	75	75	75	72	72	72	69	69	69	68
1	75	73	71	69	74	71	69	67	68	67	65	66	65	63	64	63	62	60
2	70	66	62	59	68	64	61	58	62	59	57	60	58	56	58	56	55	53
3	65	59	55	51	64	58	54	51	56	53	50	55	52	49	53	51	48	47
4	61	54	49	45	59	53	49	45	51	48	44	50	47	44	49	46	43	42
5	56	49	44	40	55	48	44	40	47	43	40	46	42	39	45	42	39	38
6	53	45	40	36	52	44	40	36	43	39	36	42	38	36	41	38	35	34
7	49	41	36	33	48	41	36	33	40	36	32	39	35	32	38	35	32	31
8	46	38	33	30	45	38	33	30	37	33	30	36	32	29	36	32	29	28
9	44	36	31	27	43	35	30	27	34	30	27	34	30	27	33	30	27	26
10	41	33	28	25	40	33	28	25	32	28	25	31	28	25	31	27	25	24

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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

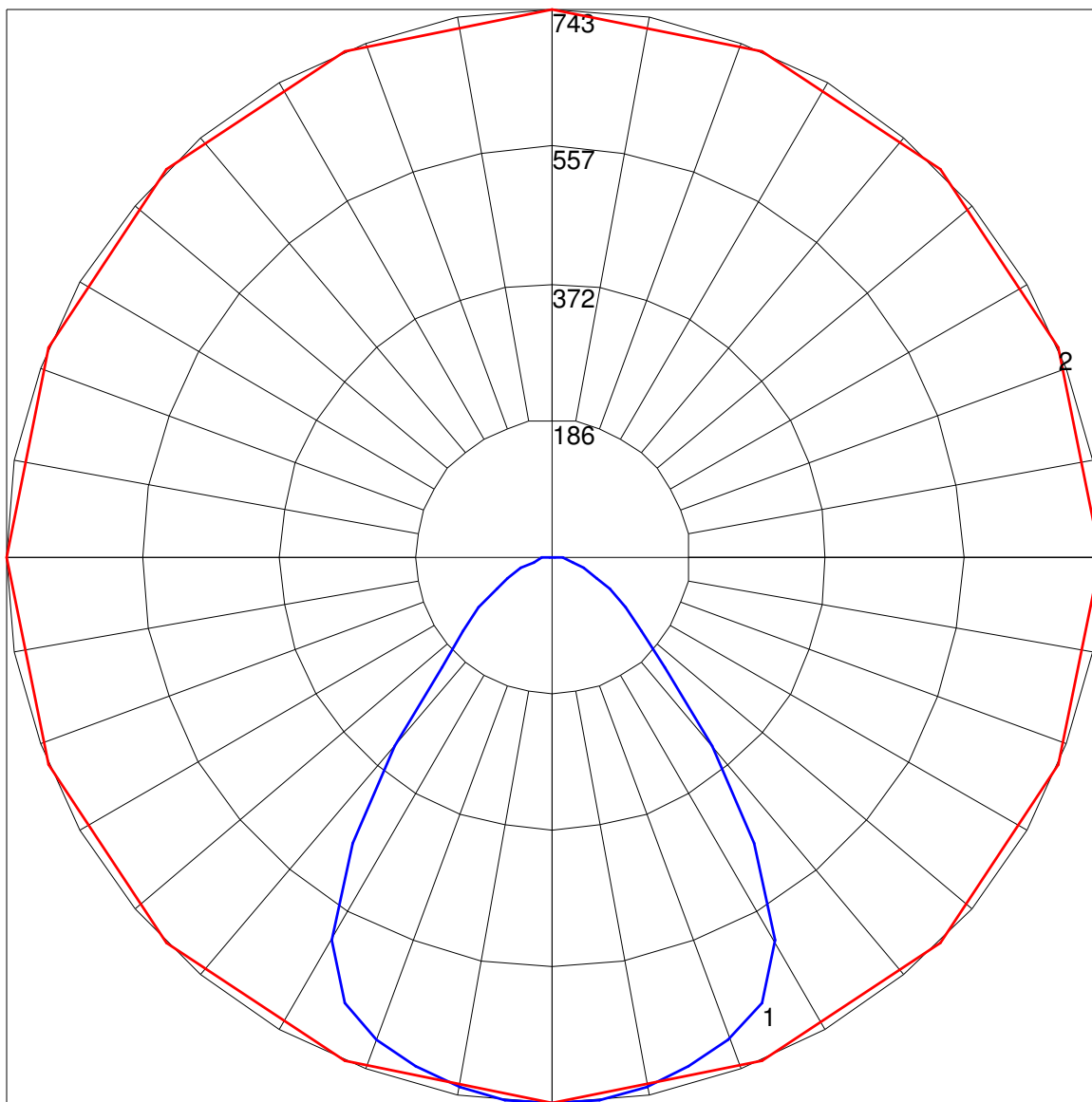
X=2H	Y=2H	21.8	23.1	22.1	23.4	23.7	21.8	23.1	22.2	23.4	23.8
	3H	22.9	24.1	23.2	24.4	24.8	22.9	24.1	23.3	24.4	24.8
	4H	23.2	24.3	23.6	24.7	25.1	23.2	24.3	23.6	24.7	25.1
	6H	23.4	24.5	23.8	24.8	25.2	23.4	24.4	23.8	24.8	25.2
	8H	23.5	24.4	23.9	24.8	25.2	23.4	24.4	23.9	24.8	25.2
	12H	23.5	24.4	23.9	24.8	25.2	23.5	24.4	23.9	24.7	25.2

UGR Viewed Endwise

4H	2H	22.1	23.2	22.5	23.6	24.0	22.2	23.3	22.6	23.6	24.0
	3H	23.4	24.3	23.8	24.7	25.1	23.4	24.3	23.9	24.7	25.2
	4H	23.9	24.7	24.3	25.1	25.5	23.9	24.7	24.3	25.1	25.5
	6H	24.2	24.9	24.6	25.3	25.8	24.1	24.8	24.6	25.3	25.7
	8H	24.2	24.9	24.7	25.3	25.8	24.2	24.8	24.6	25.3	25.8
	12H	24.2	24.8	24.7	25.3	25.8	24.2	24.8	24.7	25.2	25.7
8H	4H	24.0	24.6	24.4	25.1	25.6	24.0	24.6	24.4	25.1	25.5
	6H	24.4	24.9	24.9	25.4	25.9	24.3	24.8	24.8	25.3	25.8
	8H	24.4	24.9	25.0	25.4	25.9	24.4	24.9	24.9	25.4	25.9
	12H	24.5	24.9	25.0	25.4	26.0	24.4	24.8	24.9	25.3	25.9
12H	4H	24.0	24.5	24.5	25.0	25.5	24.0	24.5	24.5	25.0	25.5
	6H	24.3	24.8	24.9	25.3	25.8	24.3	24.8	24.8	25.3	25.8
	8H	24.5	24.9	25.0	25.4	26.0	24.4	24.8	24.9	25.3	25.9

Maximum UGR = 26.0

POLAR GRAPH



Maximum Candela = 743.303 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.)