



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4AR-P10-8TW-POE-OM-OF-CS 4000K_0 DEGREE TILT_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 20448.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 12-MAR-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] GEN7 V13 LED 4" SHORT HEATSINK 4" RND ADJ DOWNLIGHT @ 0 TILT

[MORE] ACRYLIC MED TIR OPTIC & 4" OPEN ASYM SEMI-SPEC TRIM

[LUMCAT] 4AR-P10-8TW-PoE-OM-OF-CS 4000k_0 DEGREE TILT

[_SEARCH_SOURCETYPE] LED

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

[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	982
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	80
Total Luminaire Watts	12.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.54
Spacing Criterion (90-270)	0.54
Spacing Criterion (Diagonal)	0.48
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.33 ft (Diameter)
Luminous Width (90-270)	0.33 ft (Diameter)
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	272	272	272
55	112	112	112
65	0	0	0
75	0	0	0
85	0	0	0

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4AR-P10-8TW-POE-OM-OF-CS 4000K_0 DEGREE TILT_.IES

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
0	3625.406	3625.406	3625.406	3625.406	3625.406	3625.406	3625.406	3625.406	3625.406
5	3608.279	3572.466	3567.794	3565.199	3565.718	3577.656	3574.542	3572.466	3563.123
10	3194.095	3178.524	3195.133	3181.119	3166.067	3085.618	3090.808	3100.151	3020.740
15	1904.312	1919.363	2056.906	1989.951	1948.429	1767.288	1576.286	1583.034	1479.228
20	665.912	679.926	707.953	712.625	674.217	596.882	562.107	532.003	503.457
25	280.275	290.136	302.593	305.188	297.922	250.171	223.182	215.396	192.559
30	101.210	101.210	105.363	105.882	96.020	87.197	74.221	68.512	59.169
35	18.166	16.609	17.647	17.128	16.609	15.571	13.495	13.495	13.495
40	6.747	6.228	5.709	5.709	5.709	5.709	5.190	5.190	4.671
45	1.557	1.557	1.557	1.557	1.557	1.557	1.038	1.557	1.557
50	0.519	0.519	0.519	0.519	0.519	0.519	0.000	0.000	0.519
55	0.519	0.519	0.519	0.000	0.519	1.038	0.000	1.038	0.000
60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
70	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
75	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4AR-P10-8TW-POE-OM-OF-CS 4000K_0 DEGREE TILT_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	821.77	N.A.	83.70
0-30	960.71	N.A.	97.80
0-40	979.84	N.A.	99.80
0-60	981.85	N.A.	100.00
0-80	981.85	N.A.	100.00
0-90	981.85	N.A.	100.00
10-90	655.73	N.A.	66.80
20-40	158.07	N.A.	16.10
20-50	159.77	N.A.	16.30
40-70	2.00	N.A.	0.20
60-80	0.00	N.A.	0.00
70-80	0.00	N.A.	0.00
80-90	0.00	N.A.	0.00
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	981.85	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	326.12
10-20	495.66
20-30	138.94
30-40	19.13
40-50	1.70
50-60	0.30
60-70	0.00
70-80	0.00
80-90	0.00
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

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4AR-P10-8TW-POE-OM-OF-CS 4000K_0 DEGREE TILT_.IES

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	112	112	112	112	109	109	109	109	104	104	104	100	100	100	96	96	96	94
1	108	106	104	103	106	104	102	101	100	99	98	97	96	95	94	93	92	91
2	104	101	98	96	103	100	97	95	97	95	93	94	92	91	91	90	89	88
3	101	97	94	91	100	96	93	90	93	91	89	91	89	88	89	88	86	85
4	98	93	90	87	97	92	89	86	90	88	85	89	86	85	87	85	84	82
5	95	90	86	83	94	89	86	83	88	85	82	86	84	82	85	83	81	80
6	93	87	83	80	92	86	83	80	85	82	80	84	81	79	83	81	79	78
7	90	84	80	78	89	84	80	78	83	79	77	82	79	77	81	78	76	76
8	88	82	78	75	87	81	78	75	80	77	75	80	77	75	79	76	74	73
9	85	79	76	73	85	79	75	73	78	75	73	78	75	73	77	74	72	72
10	83	77	73	71	83	77	73	71	76	73	71	76	73	71	75	72	70	70

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4AR-P10-8TW-POE-OM-OF-CS 4000K_0 DEGREE TILT_.IES

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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	3H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	4H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	6H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	8H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	12H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

UGR Viewed Endwise

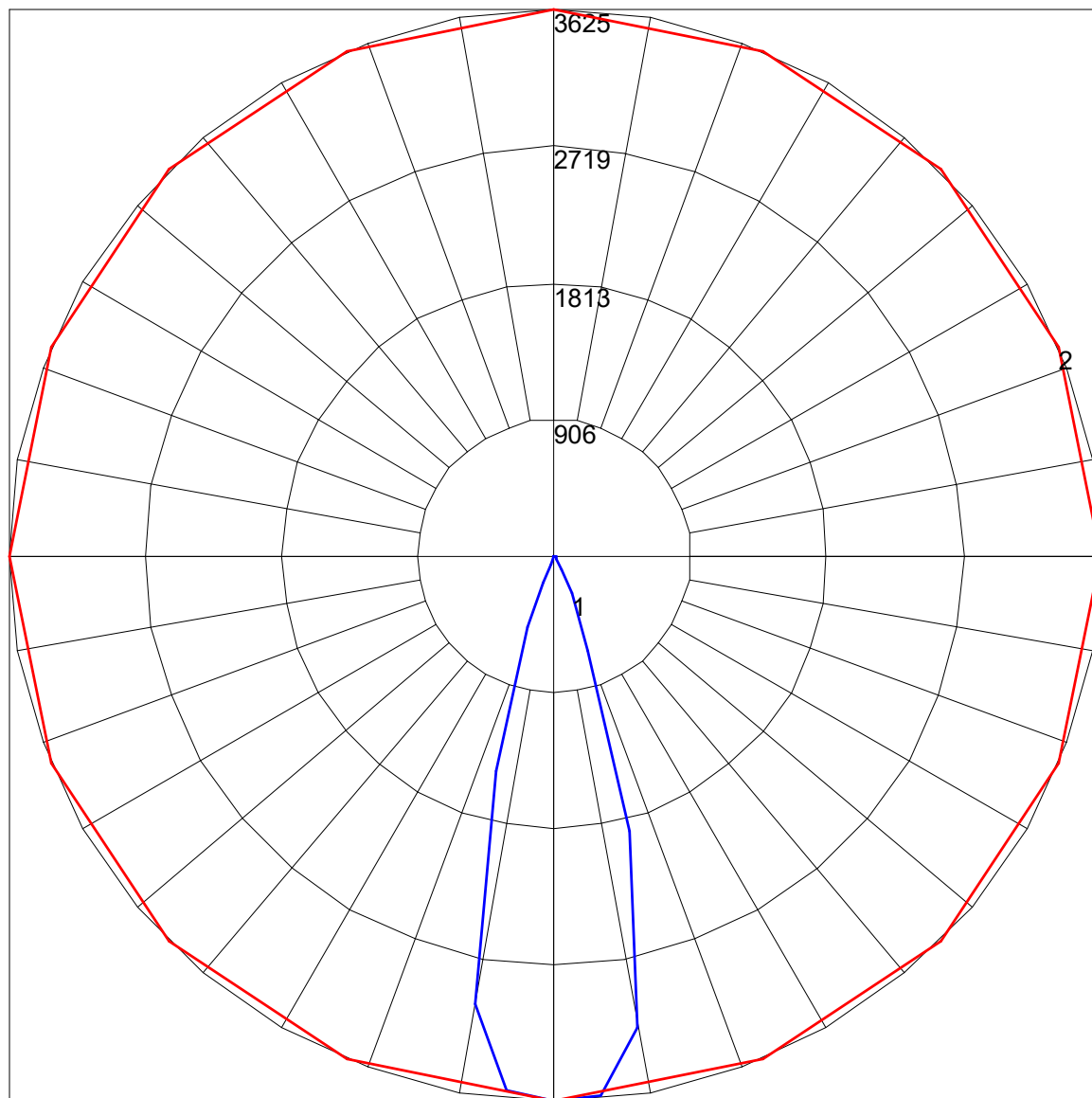
4H	2H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	3H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	4H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	6H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	8H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	12H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
8H	4H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	6H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	8H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	12H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
12H	4H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	6H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	8H	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Maximum UGR = 0.2

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4AR-P10-8TW-POE-OM-OF-CS 4000K_0 DEGREE TILT_.IES

POLAR GRAPH



Maximum Candela = 3625.406 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.)