



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DS-L40-835-DIM-UNV-OW-OF-CS.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST]BALLABS TEST NO. 20332.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUE DATE] 23-APR-2018  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
 [LUMINAIRE] GEN7 V22 LED 4"TALL HEATSINK 4"SQ CAST HOUSING DOWNLIGHT  
 [MORE] WHITE MIXING CHAMBER & 4"ALUM SEMI-SPEC TRIM w/FROST FILM  
 [MORE] ADVANCE # XI050C140V054DSM5 @ 119mA  
 [LUMCAT] 4DS-L40-835-DIM-OW-OF-CS  
 [LAMPCAT] BXRE-35E6500  
 [SEARCH\_SOURCETYPE] LED  
 [SEARCH\_APPLICATION] Indoor, Classroom, Office, Downlight  
 [SEARCH\_MOUNTING] Recessed

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3739
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	83
Total Luminaire Watts	45
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.84
Spacing Criterion (90-270)	0.82
Spacing Criterion (Diagonal)	0.86
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	41282	54311	40870
55	10314	12174	10483
65	229	918	459
75	0	0	0
85	0	0	0

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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>
<b>0</b>	4727	4727	4727	4727	4727
<b>5</b>	4591	4562	4570	4546	4549
<b>10</b>	4215	4169	4113	4136	4136
<b>15</b>	3758	3648	3545	3600	3675
<b>20</b>	3251	3102	2980	3108	3242
<b>25</b>	2705	2561	2491	2575	2674
<b>30</b>	1876	1921	2009	1916	1866
<b>35</b>	1022	1194	1475	1198	1014
<b>40</b>	505	605	881	613	523
<b>45</b>	301	308	396	308	298
<b>50</b>	166	165	164	168	170
<b>55</b>	61	74	72	76	62
<b>60</b>	5	10	25	10	5
<b>65</b>	1	2	4	1	2
<b>70</b>	0	0	0	0	0
<b>75</b>	0	0	0	0	0
<b>80</b>	0	0	0	0	0
<b>85</b>	0	0	0	0	0
<b>90</b>	0	0	0	0	0

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1439.08	N.A.	38.50
0-30	2606.21	N.A.	69.70
0-40	3382.89	N.A.	90.50
0-60	3735.23	N.A.	99.90
0-80	3739.32	N.A.	100.00
0-90	3739.32	N.A.	100.00
10-90	3316.68	N.A.	88.70
20-40	1943.81	N.A.	52.00
20-50	2225.32	N.A.	59.50
40-70	356.43	N.A.	9.50
60-80	4.09	N.A.	0.10
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	3739.32	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	422.64
10-20	1016.43
20-30	1167.13
30-40	776.68
40-50	281.51
50-60	70.83
60-70	4.09
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

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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	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	94
2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87
3	102	96	91	87	100	95	90	86	92	88	85	90	86	84	87	85	82	81
4	97	90	84	80	95	88	83	79	86	82	78	84	81	77	82	79	77	75
5	92	84	78	74	91	83	77	73	81	76	73	79	75	72	78	74	71	70
6	88	79	73	68	86	78	72	68	76	71	68	75	70	67	74	70	67	65
7	83	74	68	64	82	73	67	63	72	67	63	71	66	63	70	65	62	61
8	79	70	64	59	78	69	63	59	68	63	59	67	62	59	66	62	59	57
9	75	66	60	56	74	65	59	56	64	59	55	63	59	55	62	58	55	54
10	72	62	56	52	71	62	56	52	61	56	52	60	55	52	59	55	52	51

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**UGR TABLE - CORRECTED**

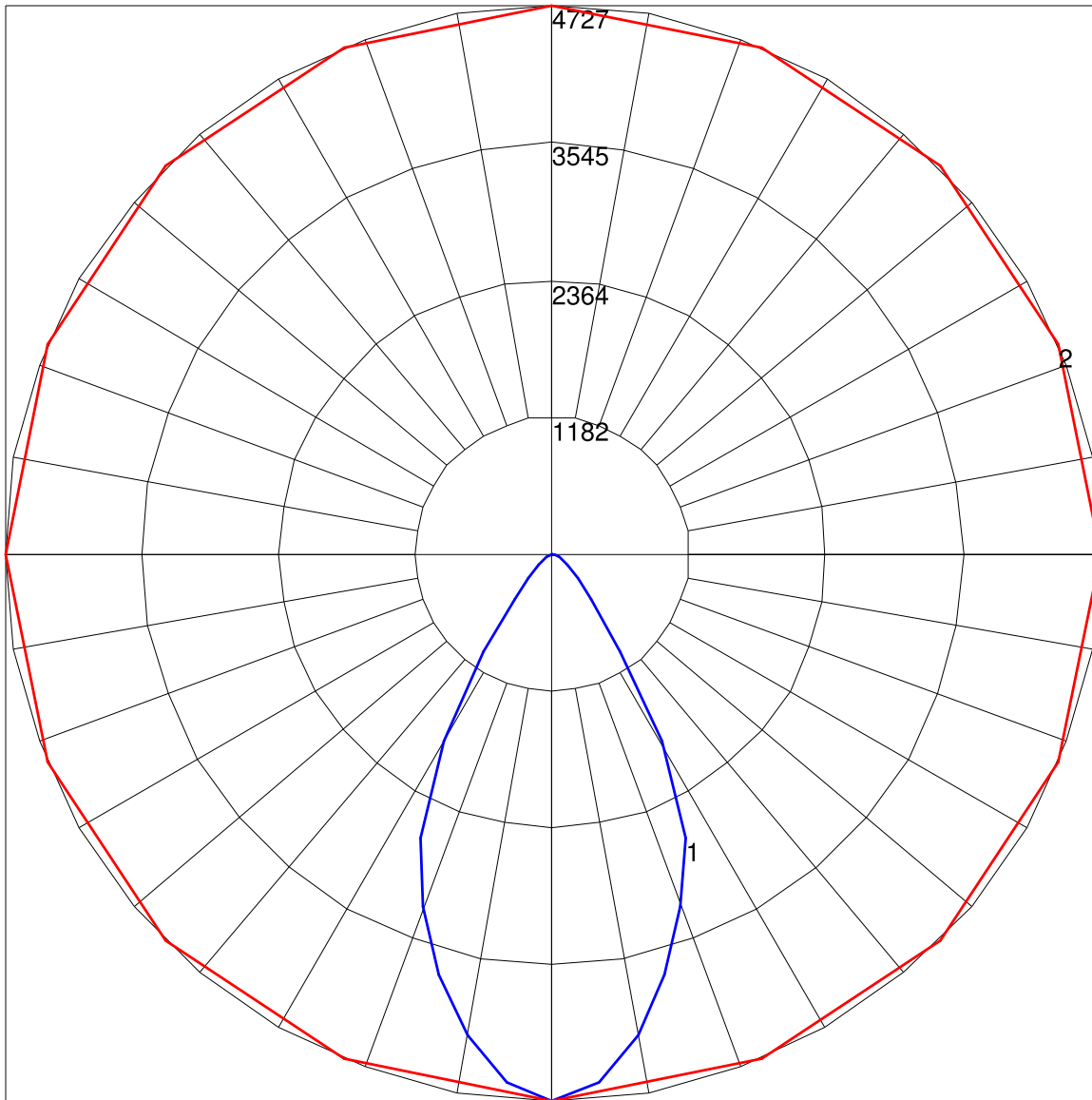
Reflectances

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	10.0	11.0	10.4	11.3	11.7	10.2	11.2	10.5	11.5	11.8
	3H	9.8	10.7	10.2	11.1	11.4	10.0	10.9	10.4	11.2	11.6
	4H	9.7	10.5	10.1	10.9	11.3	9.9	10.7	10.3	11.1	11.4
	6H	9.6	10.4	10.0	10.7	11.1	9.8	10.5	10.2	10.9	11.3
	8H	9.6	10.3	10.0	10.7	11.1	9.7	10.4	10.1	10.8	11.2
	12H	9.5	10.2	9.9	10.6	11.0	9.7	10.3	10.1	10.7	11.1
4H	2H	9.8	10.6	10.2	10.9	11.3	9.9	10.7	10.3	11.1	11.5
	3H	9.6	10.2	10.0	10.6	11.0	9.7	10.4	10.1	10.8	11.2
	4H	9.4	10.0	9.9	10.4	10.9	9.6	10.2	10.0	10.6	11.0
	6H	9.3	9.8	9.8	10.3	10.8	9.5	10.0	10.0	10.4	10.9
	8H	9.2	9.7	9.7	10.2	10.6	9.4	9.9	9.9	10.3	10.8
	12H	9.2	9.6	9.7	10.1	10.6	9.3	9.7	9.8	10.2	10.7
8H	4H	9.2	9.7	9.7	10.2	10.6	9.4	9.9	9.9	10.3	10.8
	6H	9.1	9.5	9.6	10.0	10.5	9.3	9.6	9.8	10.1	10.6
	8H	9.0	9.4	9.6	9.9	10.4	9.2	9.5	9.7	10.1	10.6
	12H	9.0	9.3	9.5	9.8	10.4	9.2	9.4	9.7	9.9	10.5
12H	4H	9.2	9.6	9.7	10.1	10.6	9.3	9.7	9.8	10.2	10.7
	6H	9.0	9.4	9.6	9.9	10.4	9.2	9.5	9.7	10.0	10.6
	8H	9.0	9.3	9.5	9.8	10.4	9.2	9.4	9.7	9.9	10.5

Maximum UGR = 11.8

POLAR GRAPH



Maximum Candela = 4727 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.)