



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DS-L40-840-DIM-UNV-RW-OF-WH-AD\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-1995  
 [TEST] GEN FROM BALLABS TEST NO. 20325.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUEDATE] 13-MAY-2020  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
 [LUMINAIRE] 4"SQ CAST HOUSING DOWNLIGHT  
 [LUMINAIRE] WITH 4" CAST WHITE REGRESS/DIFFUSE LENS  
 [LUMCAT] 4DS-L40-840-DIM-UNV-RW-OF-WH-AD  
 [LAMPCAT] LAMP CODE : BXRE-35E2000  
 [ \_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	3344
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	74
Total Luminaire Watts	45
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.92
Spacing Criterion (90-270)	0.92
Spacing Criterion (Diagonal)	1.00
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	87783	89634	86990
55	70082	68126	69430
65	46009	45124	45567
75	18782	20226	19504
85	6436	6436	8581

IES INDOOR REPORT  
 PHOTOMETRIC FILENAME : 4DS-L40-840-DIM-UNV-RW-OF-WH-AD\_.IES

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>	2429.154	2429.154	2429.154	2429.154	2429.154
<b>5</b>	2392.524	2392.524	2384.812	2382.884	2384.812
<b>10</b>	2282.634	2286.489	2286.489	2280.706	2282.634
<b>15</b>	2107.195	2109.123	2111.050	2114.906	2107.195
<b>20</b>	1879.702	1881.630	1891.270	1883.558	1875.847
<b>25</b>	1590.517	1602.085	1638.715	1617.508	1582.806
<b>30</b>	1272.414	1301.332	1363.025	1305.188	1262.774
<b>35</b>	992.868	1025.643	1079.624	1031.426	987.085
<b>40</b>	788.511	813.574	830.925	807.790	778.872
<b>45</b>	640.063	651.630	653.558	647.774	634.279
<b>50</b>	522.461	526.317	514.749	514.749	514.749
<b>55</b>	414.498	414.498	402.931	406.787	410.643
<b>60</b>	300.752	300.752	291.113	300.752	306.536
<b>65</b>	200.502	202.429	196.646	198.574	198.574
<b>70</b>	96.395	102.179	111.818	106.034	88.683
<b>75</b>	50.125	53.981	53.981	52.053	52.053
<b>80</b>	25.063	26.991	25.063	26.991	26.991
<b>85</b>	5.784	7.712	5.784	7.712	7.712
<b>90</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 4DS-L40-840-DIM-UNV-RW-OF-WH-AD\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	814.55	N.A.	24.40
0-30	1550.68	N.A.	46.40
0-40	2202.5	N.A.	65.90
0-60	3073.27	N.A.	91.90
0-80	3332.91	N.A.	99.70
0-90	3343.86	N.A.	100.00
10-90	3119.18	N.A.	93.30
20-40	1387.96	N.A.	41.50
20-50	1893.28	N.A.	56.60
40-70	1068.5	N.A.	32.00
60-80	259.64	N.A.	7.80
70-80	61.90	N.A.	1.90
80-90	10.95	N.A.	0.30
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	3343.86	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	224.69
10-20	589.86
20-30	736.14
30-40	651.82
40-50	505.32
50-60	365.45
60-70	197.73
70-80	61.90
80-90	10.95
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 : 4DS-L40-840-DIM-UNV-RW-OF-WH-AD\_.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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	96	88	82	76	94	87	81	76	84	79	74	81	77	73	79	75	72	70
4	90	80	73	67	88	79	72	67	77	71	66	74	69	65	72	68	65	63
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56
6	78	67	60	54	77	66	59	54	65	58	54	63	58	53	62	57	53	51
7	74	62	55	49	72	61	54	49	60	53	49	59	53	49	57	52	48	47
8	69	58	50	45	68	57	50	45	56	49	45	54	49	45	53	48	44	43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	60	50	43	38	49	42	38	48	42	38	47	42	38	36

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 4DS-L40-840-DIM-UNV-RW-OF-WH-AD\_.IES**

**UGR TABLE - CORRECTED**

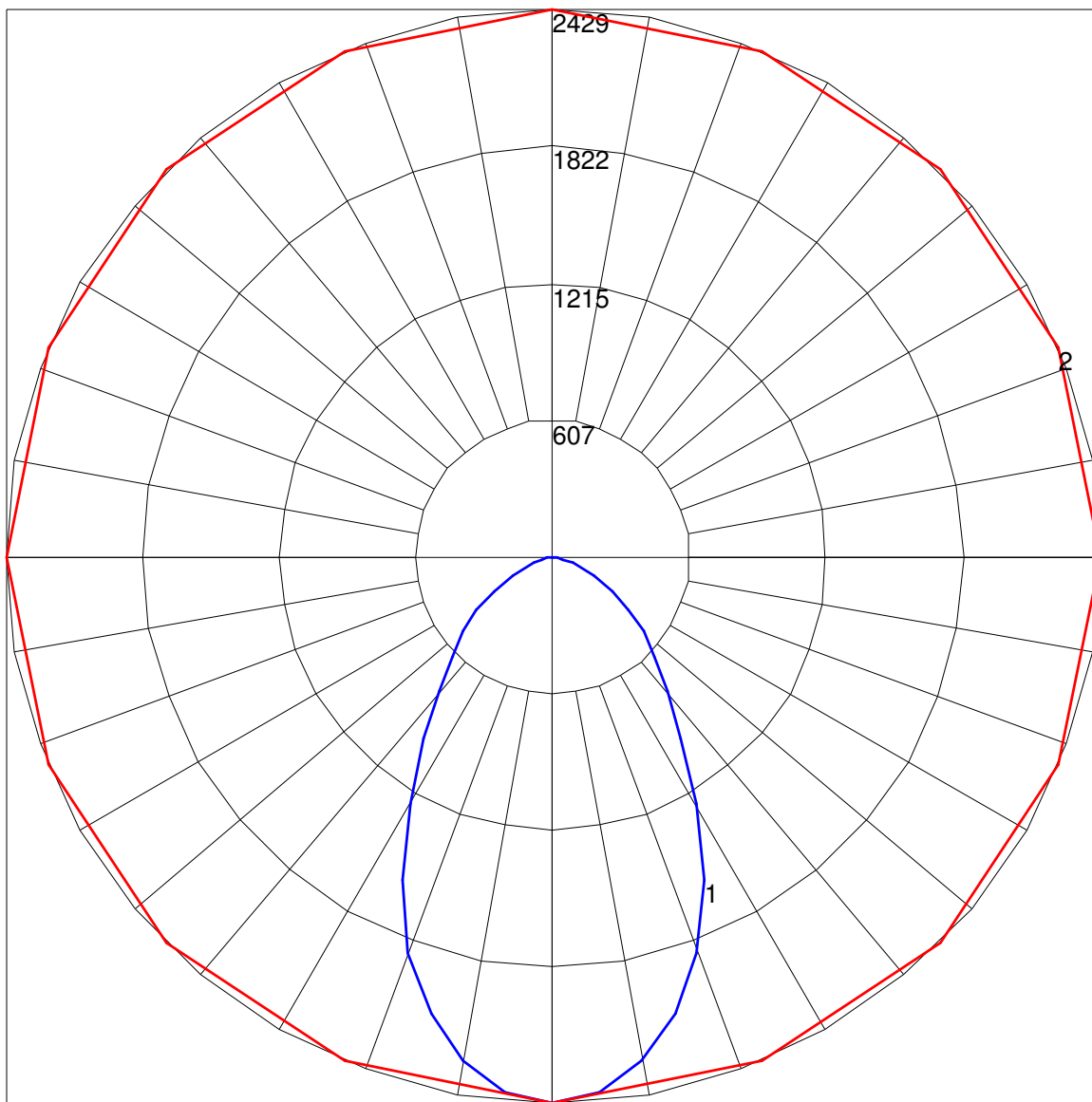
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	25.5	26.8	25.8	27.1	27.5	25.4	26.8	25.8	27.1	27.4
	3H	26.1	27.3	26.5	27.6	28.0	26.0	27.2	26.4	27.6	27.9
	4H	26.2	27.3	26.6	27.7	28.1	26.1	27.3	26.5	27.6	28.0
	6H	26.2	27.3	26.6	27.6	28.0	26.2	27.2	26.6	27.6	28.0
	8H	26.2	27.2	26.6	27.6	28.0	26.2	27.1	26.6	27.5	27.9
	12H	26.2	27.1	26.6	27.5	27.9	26.1	27.1	26.6	27.5	27.9
4H	2H	25.7	26.9	26.1	27.2	27.6	25.7	26.8	26.1	27.2	27.5
	3H	26.5	27.4	26.9	27.8	28.2	26.4	27.4	26.8	27.8	28.2
	4H	26.6	27.4	27.0	27.9	28.3	26.6	27.4	27.0	27.8	28.3
	6H	26.7	27.4	27.2	27.9	28.3	26.7	27.4	27.1	27.8	28.3
	8H	26.7	27.3	27.2	27.8	28.3	26.6	27.3	27.1	27.8	28.2
	12H	26.7	27.2	27.2	27.7	28.2	26.6	27.2	27.1	27.7	28.2
8H	4H	26.6	27.3	27.1	27.7	28.2	26.6	27.2	27.0	27.7	28.1
	6H	26.7	27.3	27.2	27.8	28.2	26.7	27.2	27.2	27.7	28.2
	8H	26.7	27.2	27.2	27.7	28.2	26.7	27.2	27.2	27.7	28.2
	12H	26.7	27.1	27.2	27.6	28.2	26.7	27.1	27.2	27.6	28.2
12H	4H	26.6	27.2	27.1	27.7	28.1	26.6	27.1	27.0	27.6	28.1
	6H	26.7	27.2	27.2	27.6	28.2	26.6	27.1	27.2	27.6	28.1
	8H	26.7	27.1	27.2	27.6	28.2	26.7	27.1	27.2	27.6	28.2

Maximum UGR = 28.3

POLAR GRAPH



Maximum Candela = 2429.154 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.)