



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DS-L22-RGB940-DMX-UNV-LW-OF-CS WHITE ONLY.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 20316.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 16 OCT, 2024

[MANUFAC] WILLIAMS INDOOR

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

[MORE] WHITE MIXING CHAMBER & 4"CAST WHITE FLUSH w/SOLITE LENS

[LUMCAT] 4DS-L22-RGB940-DMX-UNV-LW-OF-CS WHITE ONLY

[\_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	2371
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	42
Total Luminaire Watts	56.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.98
Spacing Criterion (90-270)	0.98
Spacing Criterion (Diagonal)	1.04
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	50241	54520	49765
55	37514	38491	37319
65	26783	25987	26252
75	18186	17753	18186
85	6429	5143	7715

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 4DS-L22-RGB940-DMX-UNV-LW-OF-CS WHITE ONLY.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>	1763.446	1763.446	1763.446	1763.446	1763.446
<b>5</b>	1747.267	1748.423	1747.267	1748.423	1748.423
<b>10</b>	1705.666	1706.821	1712.599	1724.155	1726.466
<b>15</b>	1647.886	1660.597	1672.153	1682.554	1682.554
<b>20</b>	1510.369	1560.060	1591.261	1587.794	1556.593
<b>25</b>	1279.249	1357.830	1447.967	1365.919	1282.716
<b>30</b>	871.322	1007.683	1201.824	1001.905	845.899
<b>35</b>	578.956	643.669	880.567	641.358	567.400
<b>40</b>	451.840	477.263	558.155	470.329	439.128
<b>45</b>	366.325	381.348	397.526	374.414	362.858
<b>50</b>	290.056	309.701	306.234	298.145	288.900
<b>55</b>	221.875	227.653	227.653	226.498	220.720
<b>60</b>	162.940	166.406	165.251	165.251	162.940
<b>65</b>	116.716	117.871	113.249	116.716	114.404
<b>70</b>	77.425	82.048	76.270	78.581	77.425
<b>75</b>	48.535	48.535	47.380	47.380	48.535
<b>80</b>	25.423	24.268	24.268	25.423	26.579
<b>85</b>	5.778	5.778	4.622	4.622	6.934
<b>90</b>	0.000	0.000	0.000	1.156	0.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 4DS-L22-RGB940-DMX-UNV-LW-OF-CS WHITE ONLY.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	633.54	N.A.	26.70
0-30	1242.25	N.A.	52.40
0-40	1688.54	N.A.	71.20
0-60	2191.43	N.A.	92.40
0-80	2361.52	N.A.	99.60
0-90	2371.31	N.A.	100.00
10-90	2205.45	N.A.	93.00
20-40	1055.00	N.A.	44.50
20-50	1353.06	N.A.	57.10
40-70	620.39	N.A.	26.20
60-80	170.09	N.A.	7.20
70-80	52.59	N.A.	2.20
80-90	9.79	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	2371.31	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	165.86
10-20	467.68
20-30	608.72
30-40	446.28
40-50	298.06
50-60	204.83
60-70	117.50
70-80	52.59
80-90	9.79
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-L22-RGB940-DMX-UNV-LW-OF-CS WHITE ONLY.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	174	174	174	174	170	170	170	170	163	163	163	156	156	156	149	149	149	146
1	164	158	154	150	160	155	151	147	149	146	143	144	141	138	138	136	134	132
2	153	144	136	130	149	141	134	128	136	130	125	132	127	123	127	123	120	117
3	143	131	122	114	139	129	120	113	125	117	111	121	115	110	117	112	108	105
4	133	120	110	102	130	118	108	101	114	106	100	111	104	99	108	102	97	95
5	125	110	99	92	122	108	99	91	106	97	90	103	95	89	100	94	89	86
6	117	101	91	83	115	100	90	83	98	89	82	96	88	82	93	87	81	79
7	110	94	84	76	108	93	83	76	91	82	75	89	81	75	87	80	75	72
8	104	88	77	70	102	87	77	70	85	76	70	83	75	69	82	74	69	66
9	98	82	72	65	96	81	71	65	79	71	64	78	70	64	77	69	64	62
10	93	77	67	60	91	76	66	60	75	66	60	73	65	60	72	65	59	57

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DS-L22-RGB940-DMX-UNV-LW-OF-CS WHITE ONLY.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	21.3	22.6	21.6	22.9	23.2	21.2	22.5	21.6	22.8	23.1
	3H	22.3	23.5	22.7	23.8	24.2	22.2	23.4	22.6	23.7	24.1
	4H	22.6	23.7	23.0	24.1	24.4	22.6	23.6	23.0	24.0	24.4
	6H	22.8	23.8	23.2	24.2	24.6	22.8	23.7	23.2	24.1	24.5
	8H	22.8	23.8	23.3	24.2	24.6	22.8	23.7	23.2	24.1	24.5
	12H	22.8	23.7	23.2	24.1	24.5	22.8	23.7	23.2	24.1	24.5

### UGR Viewed Endwise

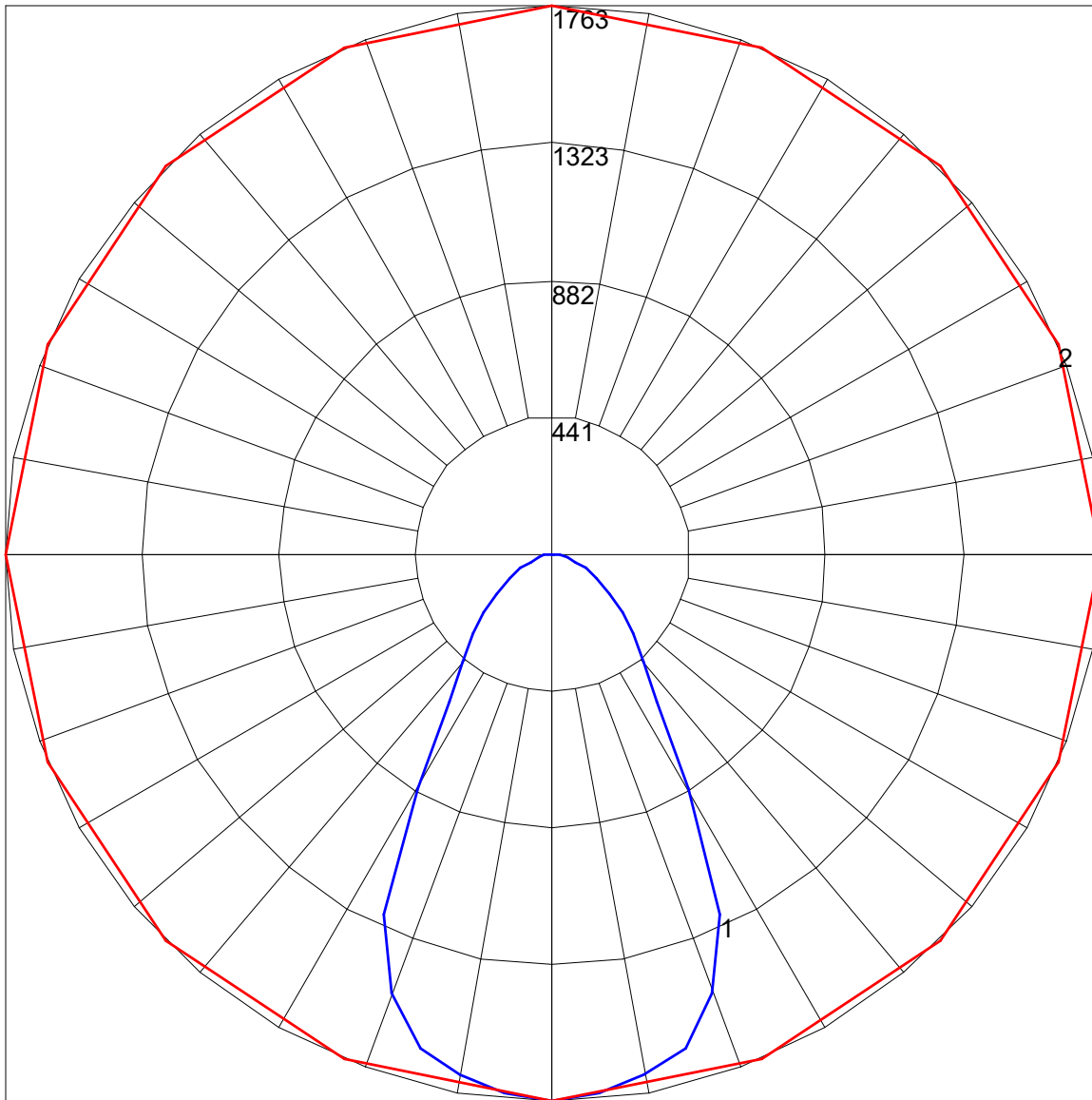
4H	2H	21.6	22.6	22.0	23.0	23.4	21.5	22.6	21.9	23.0	23.3
	3H	22.8	23.7	23.2	24.1	24.5	22.7	23.6	23.1	24.0	24.4
	4H	23.2	24.0	23.6	24.4	24.9	23.1	23.9	23.6	24.3	24.8
	6H	23.5	24.2	23.9	24.6	25.1	23.4	24.1	23.9	24.5	25.0
	8H	23.5	24.1	24.0	24.6	25.1	23.5	24.1	23.9	24.6	25.0
	12H	23.5	24.1	24.0	24.6	25.0	23.5	24.0	24.0	24.5	25.0

8H	4H	23.3	23.9	23.8	24.4	24.9	23.2	23.9	23.7	24.3	24.8
	6H	23.6	24.1	24.1	24.6	25.1	23.6	24.1	24.1	24.6	25.1
	8H	23.7	24.2	24.2	24.7	25.2	23.7	24.1	24.2	24.6	25.1
	12H	23.7	24.1	24.2	24.6	25.2	23.7	24.1	24.2	24.6	25.2

12H	4H	23.3	23.8	23.8	24.3	24.8	23.2	23.8	23.7	24.3	24.7
	6H	23.6	24.1	24.1	24.5	25.1	23.6	24.0	24.1	24.5	25.0
	8H	23.7	24.1	24.2	24.6	25.2	23.7	24.1	24.2	24.6	25.2

Maximum UGR = 25.2

POLAR GRAPH



Maximum Candela = 1763.446 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.)