



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DS-L13-9DW-DIM-UNV-RW-OF-WH\_3000K\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM BALLABS TEST NO. 20321.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUEDATE] 12-18-2023  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
 [LUMINAIRE] 4"SQ CAST HOUSING LED DOWNLIGHT  
 [MORE] WHITE MIXING CHAMBER & 4"CAST WHITE REGRESS w/SOLITE LENS  
 [MORE] 0-10V DIMMING DRIVER  
 [LUMCAT] 4DS-L13-9DW-DIM-UNV-RW-OF-WH 3000K  
 [LAMPCAT] 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	1147
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	49
Total Luminaire Watts	23.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.02
Spacing Criterion (90-270)	1.02
Spacing Criterion (Diagonal)	1.06
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	21458	23931	21379
55	16521	15931	16226
65	10677	10010	10411
75	4795	5230	5013
85	2589	1942	2589

IES INDOOR REPORT  
 PHOTOMETRIC FILENAME : 4DS-L13-9DW-DIM-UNV-RW-OF-WH\_3000K\_.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>	875.373	875.373	875.373	875.373	875.373
<b>5</b>	870.138	870.138	869.556	870.720	873.046
<b>10</b>	853.852	852.689	856.760	861.995	865.485
<b>15</b>	830.005	829.423	833.494	840.474	844.546
<b>20</b>	798.596	797.433	802.667	802.667	798.014
<b>25</b>	699.717	720.656	752.064	727.054	697.390
<b>30</b>	458.916	522.315	656.675	568.847	458.916
<b>35</b>	261.158	293.148	482.182	331.537	261.739
<b>40</b>	187.871	202.412	275.699	215.208	193.105
<b>45</b>	156.462	161.115	174.493	166.932	155.880
<b>50</b>	127.961	130.288	129.706	127.961	123.890
<b>55</b>	97.716	100.043	94.226	95.971	95.971
<b>60</b>	70.960	70.960	66.889	68.634	69.797
<b>65</b>	46.531	47.113	43.623	45.368	45.368
<b>70</b>	23.266	25.592	25.592	25.011	23.847
<b>75</b>	12.796	12.796	13.959	12.796	13.378
<b>80</b>	8.143	8.143	5.816	6.980	6.980
<b>85</b>	2.327	1.745	1.745	1.745	2.327
<b>90</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 4DS-L13-9DW-DIM-UNV-RW-OF-WH\_3000K\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	317.90	N.A.	27.70
0-30	639.35	N.A.	55.70
0-40	864.90	N.A.	75.40
0-60	1082.88	N.A.	94.40
0-80	1143.99	N.A.	99.70
0-90	1146.96	N.A.	100.00
10-90	1064.26	N.A.	92.80
20-40	546.99	N.A.	47.70
20-50	677.63	N.A.	59.10
40-70	263.71	N.A.	23.00
60-80	61.12	N.A.	5.30
70-80	15.39	N.A.	1.30
80-90	2.97	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	1146.96	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	82.70
10-20	235.21
20-30	321.44
30-40	225.55
40-50	130.64
50-60	87.34
60-70	45.73
70-80	15.39
80-90	2.97
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-L13-9DW-DIM-UNV-RW-OF-WH\_3000K\_.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	112	109	106	103	110	107	104	101	102	100	98	99	97	95	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	77	72	90	82	76	71	80	74	70	78	73	69	76	72	69	67
5	87	77	70	65	85	76	69	64	74	68	64	72	67	63	70	66	63	61
6	81	71	64	59	80	70	64	59	69	63	58	67	62	58	66	61	57	56
7	77	66	59	54	75	65	59	54	64	58	54	63	57	53	61	57	53	51
8	72	61	55	50	71	61	54	50	60	54	49	59	53	49	58	53	49	47
9	69	57	51	46	67	57	50	46	56	50	46	55	50	46	54	49	46	44
10	65	54	47	43	64	53	47	43	53	47	43	52	46	43	51	46	42	41

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DS-L13-9DW-DIM-UNV-RW-OF-WH\_3000K\_.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

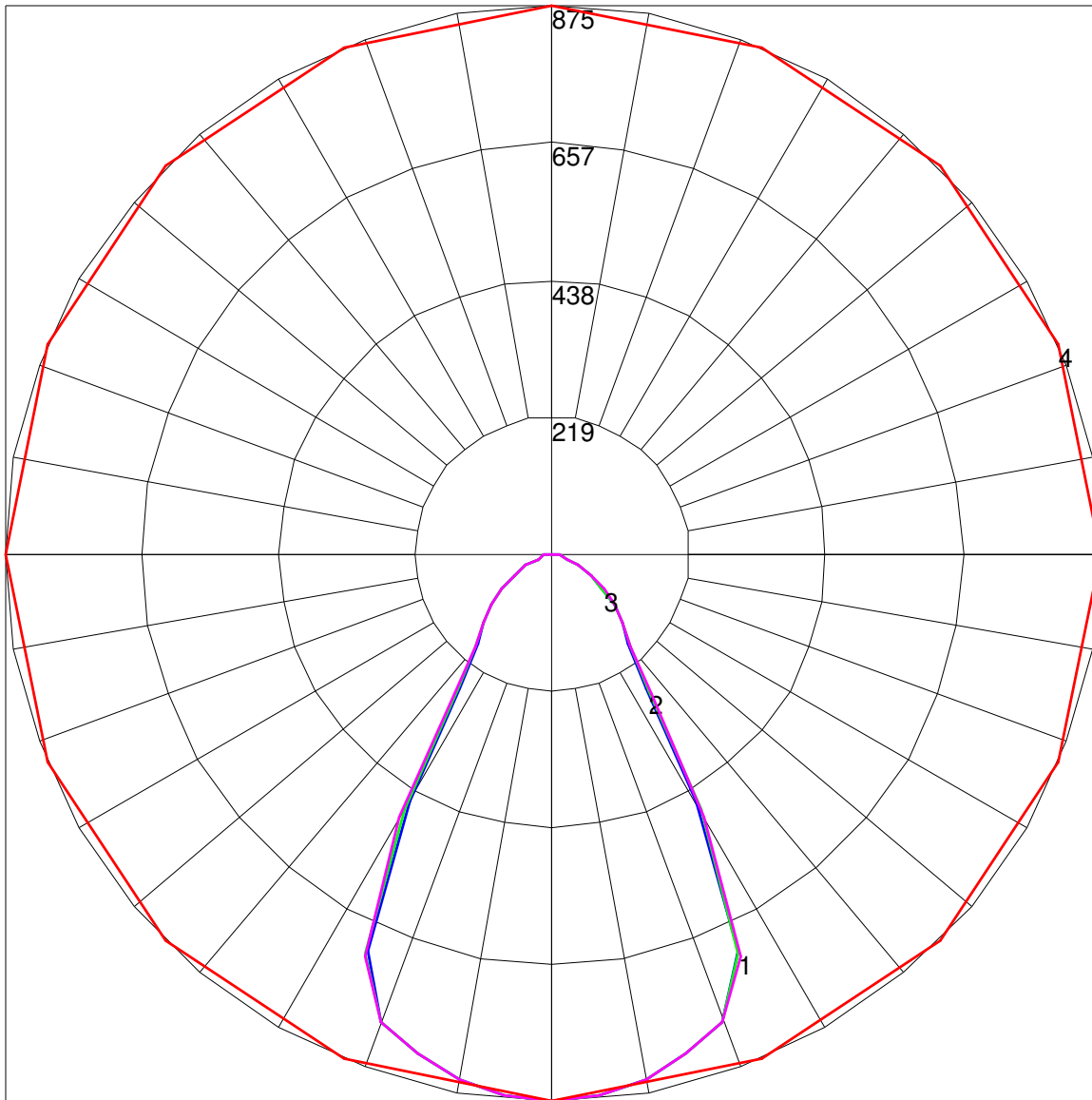
X=2H	Y=2H	19.4	20.6	19.7	20.9	21.2	19.1	20.4	19.5	20.7	21.0
	3H	20.0	21.1	20.4	21.4	21.8	19.8	20.9	20.2	21.2	21.6
	4H	20.1	21.1	20.5	21.5	21.9	19.9	20.9	20.3	21.3	21.7
	6H	20.2	21.1	20.6	21.5	21.9	20.0	20.9	20.4	21.3	21.7
	8H	20.2	21.1	20.6	21.4	21.8	20.0	20.8	20.4	21.2	21.6
	12H	20.1	21.0	20.6	21.4	21.8	19.9	20.8	20.4	21.2	21.6

### UGR Viewed Endwise

4H	2H	19.6	20.6	20.0	20.9	21.3	19.4	20.4	19.8	20.7	21.1
	3H	20.3	21.2	20.7	21.6	22.0	20.1	21.0	20.6	21.4	21.8
	4H	20.5	21.2	20.9	21.6	22.1	20.3	21.0	20.7	21.5	21.9
	6H	20.6	21.2	21.1	21.7	22.1	20.4	21.0	20.9	21.5	22.0
	8H	20.6	21.2	21.1	21.6	22.1	20.4	21.0	20.9	21.4	21.9
	12H	20.6	21.1	21.1	21.6	22.1	20.4	20.9	20.9	21.4	21.9
8H	4H	20.4	21.0	20.9	21.5	22.0	20.3	20.9	20.8	21.3	21.8
	6H	20.6	21.1	21.1	21.6	22.1	20.4	20.9	20.9	21.4	21.9
	8H	20.6	21.1	21.2	21.6	22.1	20.4	20.9	21.0	21.4	21.9
	12H	20.7	21.0	21.2	21.5	22.1	20.5	20.8	21.0	21.3	21.9
12H	4H	20.4	20.9	20.9	21.4	21.9	20.2	20.8	20.7	21.3	21.7
	6H	20.6	21.0	21.1	21.5	22.0	20.4	20.8	20.9	21.3	21.8
	8H	20.6	21.0	21.2	21.5	22.1	20.4	20.8	21.0	21.3	21.9

Maximum UGR = 22.1

POLAR GRAPH



Maximum Candela = 875.373 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Vertical Plane Through Horizontal Angles (5 - 185)  
# 3 - Vertical Plane Through Horizontal Angles (10 - 190)  
# 4 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)