



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-TL-L20-830-DIM-UNV-OW-OF-WH_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TESTLAB] Photopia 2022.1.0 see: www.ltiopics.com/ies
 [ISSUEDATE] 03 AUGUST 2022
 [TEST] H. E. WILLIAMS PHOTOMETRIC REPORT #W00543
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMINAIRE] 4DR-TL-L20-830-DIM-UNV-OW-OF-WH
 [LAMP] LED 16.8W Vero COB array (500mA)
 [LAMPCAT] BXRC-30E2000
 [OTHER] THIS DATA IS BASED ON IN-HOUSE COMPUTER
 [OTHER] SIMULATIONS AND IS PROVIDED AS A GOOD-FAITH
 [OTHER] ESTIMATE OF PHOTOMETRIC PERFORMANCE.

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1751
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	88
Total Luminaire Watts	19.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.10
Spacing Criterion (90-270)	1.10
Spacing Criterion (Diagonal)	0.92
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.46 ft
Luminous Width (90-270)	0.46 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	18751	18823	18823
55	16333	16333	16244
65	12719	12840	12840
75	9890	9692	9890
85	5874	5874	5874

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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>
0	1258	1258	1258	1258	1258
5	1253	1257	1249	1243	1254
10	1210	1227	1244	1228	1237
15	1197	1210	1205	1191	1194
20	1171	1186	1173	1188	1169
25	1155	1146	1153	1144	1153
30	853	854	850	843	845
35	289	289	290	287	290
40	269	270	270	272	273
45	259	261	260	258	260
50	231	229	228	229	228
55	183	182	183	183	182
60	140	142	142	142	142
65	105	106	106	106	106
70	77	75	75	75	76
75	50	49	49	50	50
80	28	28	28	27	28
85	10	10	10	10	10
90	0	0	0	0	0

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	459.07	N.A.	26.20
0-30	956.17	N.A.	54.60
0-40	1217.1	N.A.	69.50
0-60	1578.46	N.A.	90.20
0-80	1737.86	N.A.	99.30
0-90	1750.86	N.A.	100.00
10-90	1632.11	N.A.	93.20
20-40	758.03	N.A.	43.30
20-50	954.94	N.A.	54.50
40-70	467.46	N.A.	26.70
60-80	159.40	N.A.	9.10
70-80	53.31	N.A.	3.00
80-90	13.00	N.A.	0.70
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	1750.86	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	118.75
10-20	340.32
20-30	497.10
30-40	260.93
40-50	196.91
50-60	164.45
60-70	106.09
70-80	53.31
80-90	13.00
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	111	108	104	101	109	105	102	100	101	99	97	98	96	94	94	92	91	89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	97	88	82	77	95	87	81	76	84	79	75	82	77	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	55	53
7	75	64	56	51	73	63	56	51	62	55	51	60	55	51	59	54	50	49
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45
9	67	55	48	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39

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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

X=2H	Y=2H	20.0	21.3	20.4	21.6	22.0	20.0	21.3	20.4	21.7	22.0
	3H	21.3	22.5	21.7	22.8	23.2	21.3	22.5	21.7	22.8	23.2
	4H	21.8	22.9	22.2	23.2	23.6	21.8	22.9	22.2	23.2	23.6
	6H	22.1	23.1	22.5	23.5	23.9	22.1	23.1	22.5	23.5	23.9
	8H	22.2	23.1	22.6	23.5	23.9	22.2	23.1	22.6	23.5	23.9
	12H	22.2	23.1	22.6	23.5	23.9	22.2	23.1	22.6	23.5	23.9

UGR Viewed Endwise

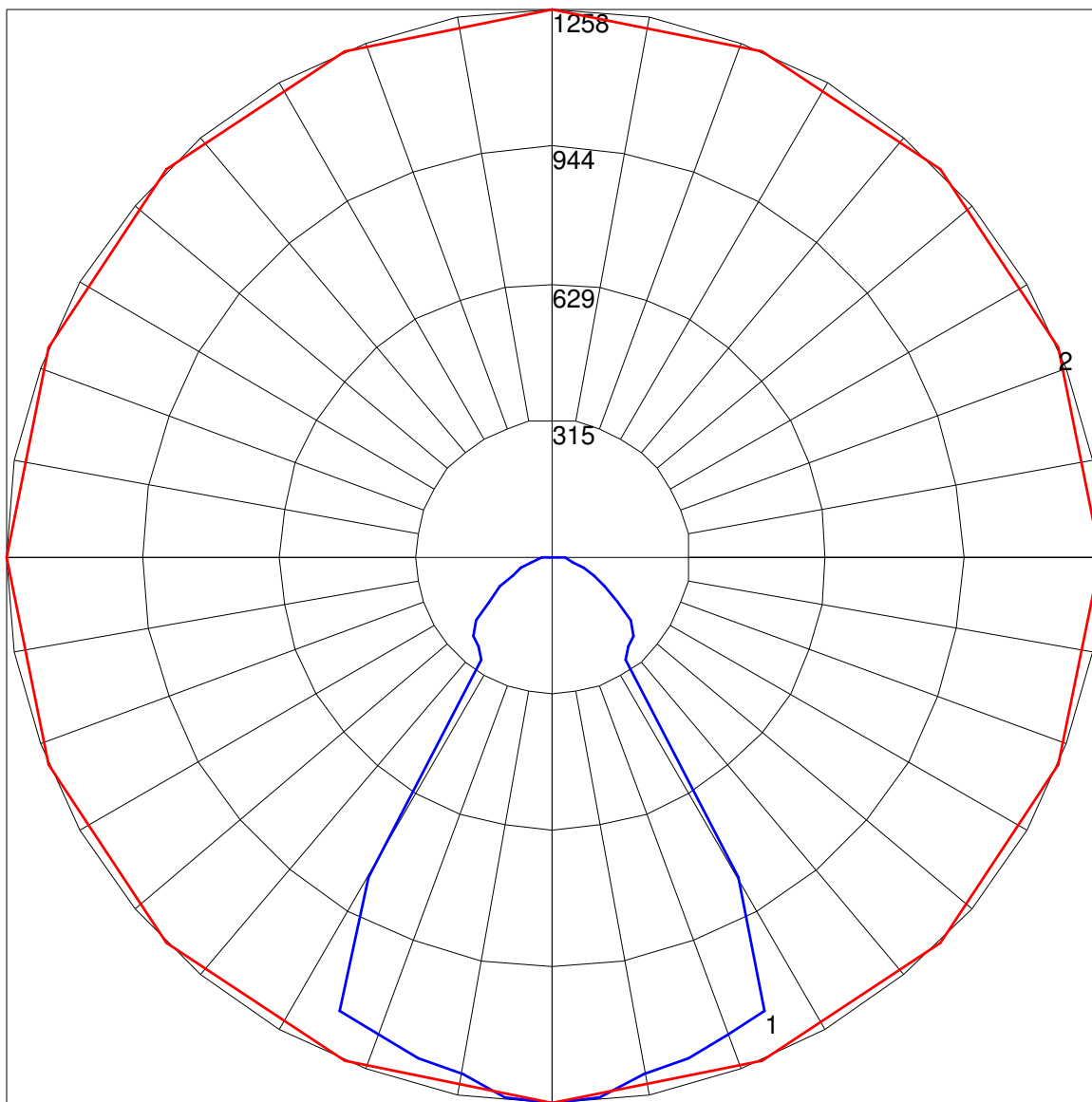
4H	2H	20.4	21.5	20.8	21.9	22.3	20.4	21.5	20.8	21.9	22.3
	3H	21.9	22.9	22.4	23.3	23.7	22.0	22.9	22.4	23.3	23.7
	4H	22.5	23.3	22.9	23.7	24.2	22.5	23.3	23.0	23.8	24.2
	6H	22.9	23.6	23.4	24.1	24.5	22.9	23.6	23.4	24.1	24.5
	8H	23.0	23.7	23.5	24.1	24.6	23.0	23.7	23.5	24.1	24.6
	12H	23.1	23.7	23.6	24.1	24.6	23.1	23.7	23.6	24.1	24.6

8H	4H	22.7	23.3	23.1	23.8	24.2	22.7	23.3	23.2	23.8	24.3
	6H	23.2	23.7	23.7	24.2	24.7	23.2	23.7	23.7	24.2	24.7
	8H	23.3	23.8	23.9	24.3	24.8	23.3	23.8	23.9	24.3	24.8
	12H	23.5	23.9	24.0	24.4	24.9	23.4	23.9	24.0	24.4	24.9

12H	4H	22.7	23.3	23.2	23.7	24.2	22.7	23.3	23.2	23.8	24.2
	6H	23.2	23.7	23.7	24.1	24.7	23.2	23.7	23.7	24.1	24.7
	8H	23.4	23.8	23.9	24.3	24.9	23.4	23.8	23.9	24.3	24.9

Maximum UGR = 24.9

POLAR GRAPH



Maximum Candela = 1258 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.)