IES INDOOR REPORT
PHOTOMETRIC FILENAME : DIG-S24-L50-835-WPR-(L30)- EM10W-DIM-UNV (EMER MODE)_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]GEN FROM BALLABS TEST NO. 19231.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 08-21-2023
[MANUFAC]WILLIAMS INDOOR
[OTHER]H.E. WILLIAMS, INC - CARTHAGE, MO 64836
[LUMINAIRE] 2x4'RECESSED LED TROFFER
[MORE] WITH WHITE PERFORATED DIFFUSER
[LUMCAT] DIG-S24-L50-835-WPR-(L30)- EM10W-DIM-UNV (EMER MODE)
[LAMPCAT] HLM 80 CRI, 3500K CCT
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Architectural, Classroom, Commercial, Educational, Office, Direct, Indirect
[_SEARCH_MOUNTING] Ceiling, Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1106
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	111
Total Luminaire Watts	10
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.10
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.91 ft
Luminous Width (90-270)	1.88 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	502	556	589
55	436	510	557
65	393	510	610
75	322	437	393
85	269	298	327

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	402.192	402.192	402.192	402.192	402.192
5	397.428	397.314	397.314	397.541	397.541
10	393.685	393.912	394.479	395.500	395.953
15	378.146	378.713	380.868	382.570	383.137
20	370.887	371.228	374.970	378.146	379.167
25	333.572	335.954	341.171	345.368	347.296
30	283.326	303.742	327.447	320.075	312.135
35	283.780	289.337	299.319	307.712	310.661
40	258.941	265.859	279.243	289.337	292.740
45	241.701	250.888	267.561	279.810	283.666
50	205.633	215.273	233.081	245.330	249.073
55	170.359	180.907	199.394	212.892	217.428
60	137.240	148.128	166.502	182.948	188.619
65	113.081	125.104	146.767	167.637	175.689
70	84.612	97.089	120.680	128.620	118.865
75	56.711	68.393	77.013	69.867	69.300
80	35.161	44.461	44.007	41.285	40.832
85	15.992	18.374	17.694	18.374	19.395
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	146.16	N.A.	13.20
0-30	303.84	N.A.	27.50
0-40	489.86	N.A.	44.30
0-60	866.99	N.A.	78.40
0-80	1085.25	N.A.	98.10
0-90	1106.48	N.A.	100.00
10-90	1068.59	N.A.	96.60
20-40	343.70	N.A.	31.10
20-50	544.33	N.A.	49.20
40-70	518.09	N.A.	46.80
60-80	218.26	N.A.	19.70
70-80	77.30	N.A.	7.00
80-90	21.23	N.A.	1.90
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	1106.48	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	37.89
10-20	108.26
20-30	157.69
30-40	186.02
40-50	200.63
50-60	176.50
60-70	140.96
70-80	77.30
80-90	21.23
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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	69
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	56	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

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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	9.0	10.6	9.3	10.9	11.3	10.4	12.0	10.8	12.4	12.7
	3H	10.7	12.2	11.1	12.6	12.9	12.5	14.0	12.9	14.4	14.7
	4H	11.3	12.8	11.7	13.1	13.5	13.1	14.5	13.5	14.8	15.2
	6H	11.8	13.1	12.2	13.5	13.9	13.4	14.7	13.8	15.1	15.5
	8H	12.0	13.2	12.4	13.6	14.0	13.5	14.8	13.9	15.2	15.6
	12H	12.1	13.3	12.5	13.6	14.1	13.6	14.8	14.0	15.2	15.6
4H	2H	9.9	11.3	10.3	11.7	12.1	11.0	12.4	11.4	12.8	13.1
	3H	11.9	13.1	12.3	13.5	13.9	13.4	14.6	13.8	15.0	15.4
	4H	12.7	13.7	13.1	14.1	14.6	14.0	15.0	14.4	15.5	15.9
	6H	13.3	14.2	13.7	14.6	15.1	14.4	15.4	14.9	15.8	16.3
	8H	13.4	14.3	13.9	14.8	15.2	14.6	15.5	15.1	15.9	16.4
	12H	13.6	14.4	14.1	14.9	15.3	14.7	15.5	15.2	16.0	16.5
8H	4H	13.1	14.0	13.6	14.4	14.9	14.2	15.1	14.7	15.6	16.0
	6H	13.8	14.6	14.3	15.0	15.5	14.8	15.5	15.3	16.0	16.5
	8H	14.1	14.8	14.6	15.3	15.8	15.0	15.7	15.6	16.2	16.7
	12H	14.3	14.9	14.8	15.4	16.0	15.2	15.8	15.7	16.3	16.8
12H	4H	13.1	13.9	13.6	14.4	14.9	14.3	15.1	14.7	15.5	16.0
	6H	13.9	14.6	14.4	15.0	15.6	14.9	15.5	15.4	16.0	16.5
	8H	14.2	14.8	14.8	15.3	15.9	15.1	15.7	15.6	16.2	16.8

Maximum UGR = 16.8

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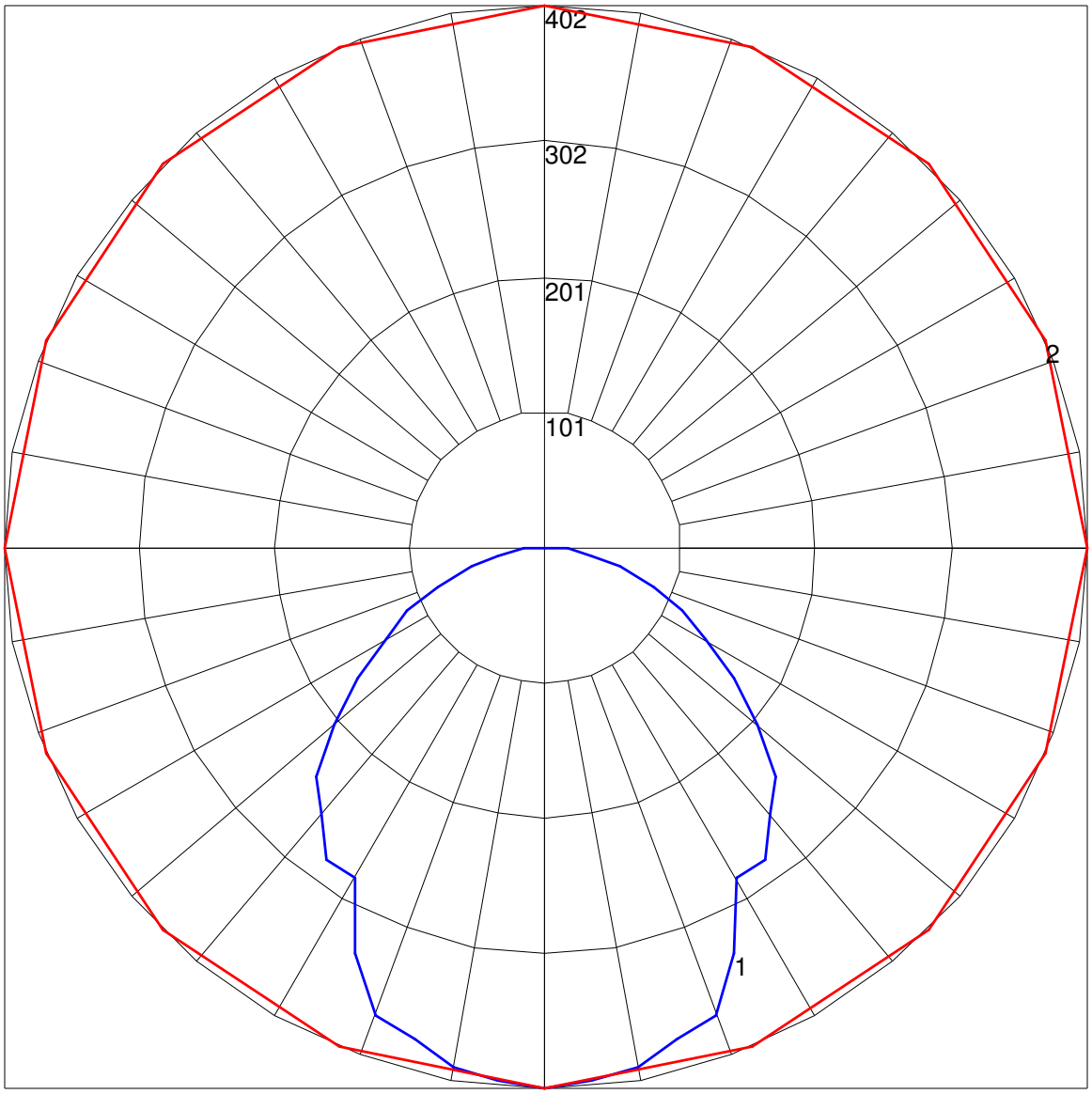
POLAR GRAPH



Maximum Candela = 402.192 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.)

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