



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DS-L30-840-DIM-UNV-LW-OF-CS-IP_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 20349.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 29-NOV-2023

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 6" SQ RECESSED LED DOWNLIGHT

[MORE] WHITE MIXING CHAMBER & 6"CAST WHITE FLUSH TRIM w/SOLITE

[MORE] LENS AND 0-10V LED DRIVER

[LUMCAT] 6DS-L30-840-DIM-UNV-LW-OF-CS-IP

[LAMPCAT] BXRE-35E2000

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Classroom, Commercial, Industrial, Office, Direct, Downlight

[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3059
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	99
Total Luminaire Watts	31
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.04
Spacing Criterion (90-270)	1.06
Spacing Criterion (Diagonal)	1.10
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.50 ft
Luminous Width (90-270)	0.50 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	28487	32876	27860
55	22197	22750	21977
65	15438	15438	14988
75	9790	9545	9300
85	2180	1453	2907

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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	2066.014	2066.014	2066.014	2066.014	2066.014
5	2071.905	2061.597	2061.597	2060.124	2064.542
10	2052.761	2043.926	2042.453	2035.090	2046.871
15	2024.782	2010.057	1998.276	1992.386	1998.276
20	1924.648	1945.264	1955.572	1929.065	1904.032
25	1686.091	1733.214	1859.855	1750.885	1693.454
30	1259.046	1406.303	1587.429	1416.611	1260.519
35	771.626	929.191	1244.321	877.651	774.571
40	583.137	640.568	852.617	615.534	575.774
45	468.277	496.256	540.433	483.003	457.969
50	375.505	391.703	403.484	382.868	375.505
55	295.986	295.986	303.349	297.459	293.041
60	214.995	216.468	213.523	213.523	217.940
65	151.675	151.675	151.675	150.202	147.257
70	100.135	98.662	92.772	97.190	98.662
75	58.903	57.430	57.430	55.958	55.958
80	32.397	29.451	27.979	27.979	27.979
85	4.418	5.890	2.945	4.418	5.890
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	760.87	N.A.	24.90
0-30	1550.28	N.A.	50.70
0-40	2171.44	N.A.	71.00
0-60	2834.05	N.A.	92.60
0-80	3048.97	N.A.	99.70
0-90	3059.33	N.A.	100.00
10-90	2863.1	N.A.	93.60
20-40	1410.57	N.A.	46.10
20-50	1805.43	N.A.	59.00
40-70	814.25	N.A.	26.60
60-80	214.92	N.A.	7.00
70-80	63.27	N.A.	2.10
80-90	10.36	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	3059.33	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	196.23
10-20	564.64
20-30	789.40
30-40	621.17
40-50	394.86
50-60	267.74
60-70	151.65
70-80	63.27
80-90	10.36
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	112	108	105	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90
2	104	98	93	89	102	96	92	87	93	89	86	90	87	84	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	72
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58
6	80	69	61	56	78	68	61	56	66	60	56	65	59	55	63	58	55	53
7	75	64	56	51	73	63	56	51	62	55	51	60	55	50	59	54	50	49
8	71	59	52	47	69	58	52	47	57	51	47	56	51	46	55	50	46	45
9	67	55	48	43	65	55	48	43	54	47	43	53	47	43	52	47	43	41
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	43	40	38

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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

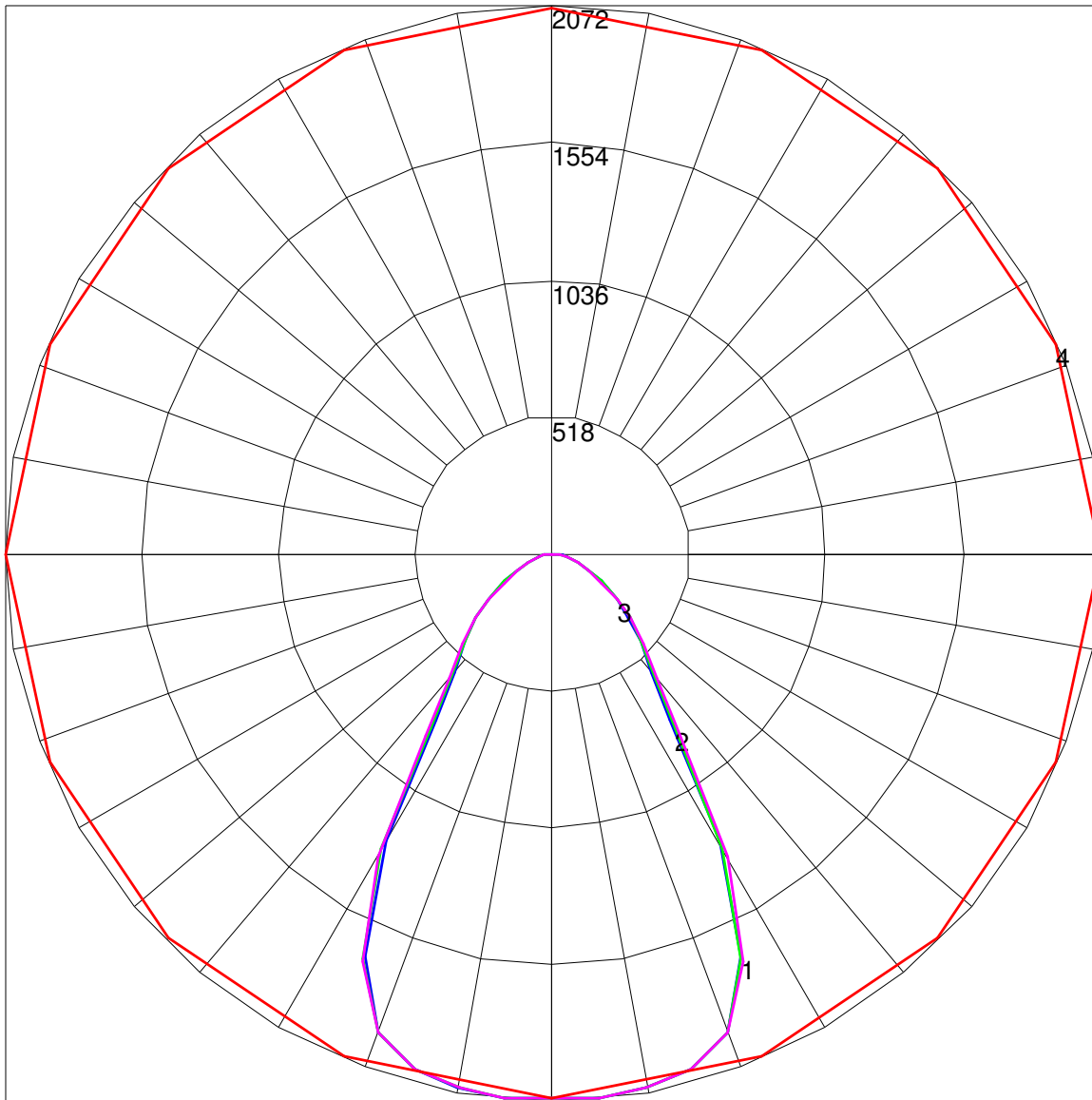
X=2H	Y=2H	20.7	22.0	21.1	22.3	22.6	20.7	22.0	21.1	22.3	22.6
	3H	21.7	22.9	22.1	23.2	23.5	21.7	22.8	22.0	23.1	23.5
	4H	22.0	23.0	22.4	23.4	23.8	21.9	23.0	22.3	23.3	23.7
	6H	22.1	23.1	22.6	23.5	23.9	22.0	23.0	22.5	23.4	23.8
	8H	22.2	23.1	22.6	23.5	23.9	22.0	23.0	22.5	23.4	23.8
	12H	22.1	23.0	22.6	23.4	23.8	22.0	22.9	22.4	23.3	23.7

UGR Viewed Endwise

4H	2H	21.0	22.1	21.5	22.5	22.8	21.0	22.1	21.4	22.4	22.8
	3H	22.2	23.1	22.6	23.5	23.9	22.1	23.0	22.5	23.4	23.8
	4H	22.5	23.3	23.0	23.7	24.2	22.5	23.2	22.9	23.7	24.1
	6H	22.8	23.4	23.2	23.9	24.3	22.7	23.3	23.1	23.8	24.2
	8H	22.8	23.4	23.2	23.9	24.3	22.7	23.3	23.1	23.7	24.2
	12H	22.8	23.3	23.3	23.8	24.3	22.7	23.2	23.1	23.7	24.2
8H	4H	22.6	23.2	23.0	23.7	24.1	22.5	23.2	23.0	23.6	24.1
	6H	22.9	23.4	23.4	23.9	24.4	22.8	23.3	23.3	23.8	24.3
	8H	22.9	23.4	23.5	23.9	24.4	22.8	23.3	23.3	23.8	24.3
	12H	22.9	23.3	23.5	23.8	24.4	22.8	23.2	23.3	23.7	24.3
12H	4H	22.6	23.1	23.1	23.6	24.1	22.5	23.1	23.0	23.5	24.0
	6H	22.9	23.3	23.4	23.8	24.3	22.8	23.2	23.3	23.7	24.2
	8H	22.9	23.3	23.5	23.8	24.4	22.8	23.2	23.3	23.7	24.3

Maximum UGR = 24.4

POLAR GRAPH



Maximum Candela = 2071.905 Located At Horizontal Angle = 0, Vertical Angle = 5
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 (5) (Through Max. Cd.)