



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DS-P35-835-POE PR-OW-OF-CS\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 20310.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 10/27/2022

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 4"SHORT HEATSINK 4"SQ CAST HOUSING DOWLIGHT

[MORE] WHITE MIXING CHAMBER & 4"SEMI-SPEC TRIM w/FROST FILM

[LUMCAT] 4DS-P35-835-POE PR-OW-OF-CS

[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	3221
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	86
Total Luminaire Watts	37.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.84
Spacing Criterion (90-270)	0.82
Spacing Criterion (Diagonal)	0.86
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	35004	45272	35238
55	7192	9494	6329
65	0	0	0
75	0	0	0
85	0	0	0

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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>
<b>0</b>	4139.827	4139.827	4139.827	4139.827	4139.827
<b>5</b>	4022.422	4007.108	3984.988	3984.988	3964.570
<b>10</b>	3677.011	3631.069	3581.725	3580.023	3576.620
<b>15</b>	3277.151	3180.163	3064.459	3106.997	3207.388
<b>20</b>	2870.484	2707.137	2586.329	2669.704	2792.214
<b>25</b>	2356.622	2246.022	2142.229	2184.767	2324.293
<b>30</b>	1606.246	1657.292	1728.757	1672.606	1626.665
<b>35</b>	896.707	1031.128	1272.746	1034.531	845.661
<b>40</b>	430.488	517.266	738.465	529.176	444.100
<b>45</b>	255.230	258.633	330.097	245.021	256.931
<b>50</b>	142.929	137.824	129.316	131.018	129.316
<b>55</b>	42.538	52.747	56.151	51.046	37.434
<b>60</b>	1.702	5.105	17.015	5.105	0.000
<b>65</b>	0.000	0.000	0.000	0.000	0.000
<b>70</b>	0.000	0.000	0.000	0.000	0.000
<b>75</b>	0.000	0.000	0.000	0.000	0.000
<b>80</b>	0.000	0.000	0.000	0.000	0.000
<b>85</b>	0.000	0.000	0.000	0.000	0.000
<b>90</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1251.5	N.A.	38.90
0-30	2261.44	N.A.	70.20
0-40	2930.42	N.A.	91.00
0-60	3218.87	N.A.	99.90
0-80	3220.57	N.A.	100.00
0-90	3220.57	N.A.	100.00
10-90	2851.56	N.A.	88.50
20-40	1678.92	N.A.	52.10
20-50	1914.28	N.A.	59.40
40-70	290.15	N.A.	9.00
60-80	1.71	N.A.	0.10
70-80	0.00	N.A.	0.00
80-90	0.00	N.A.	0.00
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	3220.57	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	369.01
10-20	882.49
20-30	1009.94
30-40	668.99
40-50	235.36
50-60	53.09
60-70	1.71
70-80	0.00
80-90	0.00
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	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	94
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	92	90	89	87
3	102	96	91	87	100	95	90	86	92	88	85	90	86	84	87	85	82	81
4	97	90	84	80	95	89	83	80	86	82	79	84	81	78	83	79	77	75
5	92	84	78	74	91	83	78	74	81	77	73	80	75	72	78	74	72	70
6	88	79	73	69	86	78	72	68	77	72	68	75	71	67	74	70	67	65
7	83	74	68	64	82	73	68	64	72	67	63	71	66	63	70	66	63	61
8	79	70	64	60	78	69	64	60	68	63	59	67	62	59	66	62	59	57
9	76	66	60	56	74	65	60	56	64	59	56	64	59	56	63	58	55	54
10	72	62	57	53	71	62	56	53	61	56	52	60	56	52	60	55	52	51

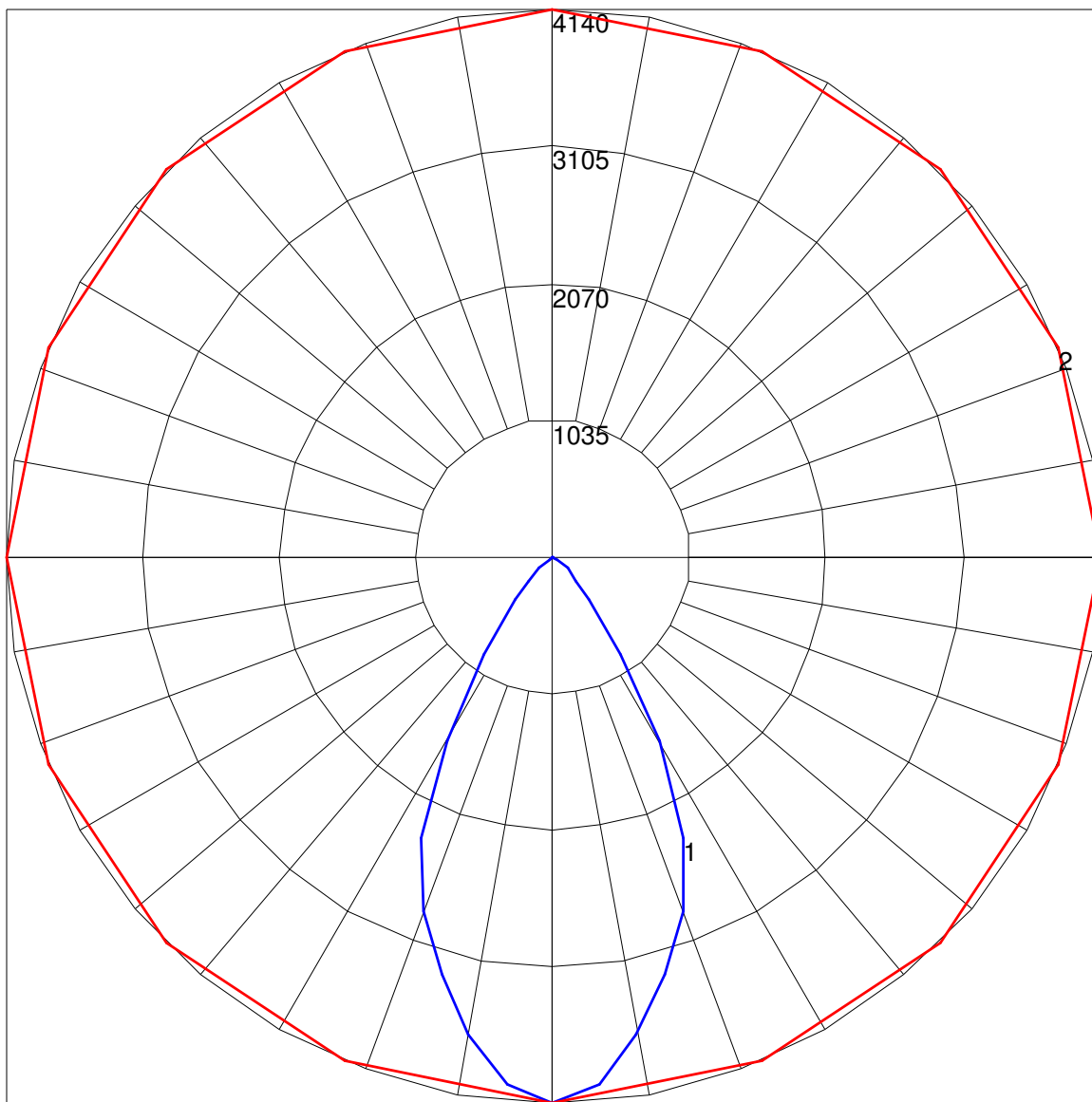
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**UGR TABLE - CORRECTED**

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	7.9	8.9	8.3	9.2	9.5	7.6	8.6	7.9	8.9	9.2
	3H	7.7	8.6	8.1	8.9	9.3	7.4	8.3	7.8	8.6	9.0
	4H	7.6	8.4	8.0	8.8	9.2	7.3	8.1	7.7	8.4	8.8
	6H	7.5	8.3	7.9	8.6	9.0	7.2	7.9	7.6	8.3	8.7
	8H	7.5	8.2	7.9	8.5	9.0	7.1	7.8	7.6	8.2	8.6
	12H	7.4	8.1	7.8	8.4	8.9	7.1	7.7	7.5	8.1	8.5
4H	2H	7.6	8.4	8.0	8.8	9.2	7.3	8.1	7.7	8.5	8.8
	3H	7.4	8.1	7.8	8.5	8.9	7.1	7.7	7.5	8.1	8.5
	4H	7.3	7.9	7.7	8.3	8.8	7.0	7.5	7.4	8.0	8.4
	6H	7.2	7.7	7.7	8.1	8.6	6.9	7.3	7.3	7.8	8.3
	8H	7.1	7.6	7.6	8.0	8.5	6.8	7.2	7.3	7.7	8.2
	12H	7.0	7.4	7.5	7.9	8.4	6.7	7.1	7.2	7.6	8.1
8H	4H	7.1	7.6	7.6	8.0	8.5	6.8	7.2	7.3	7.7	8.2
	6H	7.0	7.4	7.5	7.9	8.3	6.6	7.0	7.1	7.5	8.0
	8H	6.9	7.2	7.4	7.8	8.3	6.6	6.9	7.1	7.4	7.9
	12H	6.9	7.1	7.4	7.6	8.2	6.5	6.8	7.0	7.3	7.9
12H	4H	7.0	7.4	7.5	7.9	8.4	6.7	7.1	7.2	7.6	8.1
	6H	6.9	7.2	7.4	7.7	8.3	6.6	6.9	7.1	7.4	7.9
	8H	6.9	7.1	7.4	7.6	8.2	6.5	6.8	7.0	7.3	7.9

Maximum UGR = 9.5

POLAR GRAPH



Maximum Candela = 4139.827 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.)