



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-TL-L13-8TW-DIM-UNV-OW-OF-CS_4000K(2).IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST]GEN FROM BALLABS TEST NO. 20685.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUE DATE] 23-JUNE-2020
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 4"RND RECESSED LED CAST HOUSING DOWNLIGHT
 [MORE] OPEN SEMI-SPEC SPUN ALUMINUM REFLECTOR (WIDE)
 [LUMCAT] 4DR-TL-L13-8TW-DIM-UNV-OW-OF-CS_4000k
 [LAMPCAT] V13 BXRE-35E2000

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1283
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	88
Total Luminaire Watts	14.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	0.94
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.37 ft (Diameter)
Luminous Width (90-270)	0.37 ft (Diameter)
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3890	3890	3890
55	1199	1199	1199
65	148	148	148
75	0	0	0
85	0	0	0

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-TL-L13-8TW-DIM-UNV-OW-OF-CS_4000K(2).IES

CANDELA TABULATION

	<u>0</u>
0	1101.105
5	1133.955
10	1168.023
15	1192.357
20	1245.283
25	1357.218
30	1063.387
35	186.762
40	48.668
45	26.767
50	13.992
55	6.692
60	3.042
65	0.608
70	0.608
75	0.000
80	0.000
85	0.000
90	0.000

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4DR-TL-L13-8TW-DIM-UNV-OW-OF-CS_4000K(2).IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	449.98	N.A.	35.10
0-30	1029.26	N.A.	80.20
0-40	1252.64	N.A.	97.60
0-60	1281.59	N.A.	99.90
0-80	1282.94	N.A.	100.00
0-90	1282.94	N.A.	100.00
10-90	1173.87	N.A.	91.50
20-40	802.66	N.A.	62.60
20-50	824.86	N.A.	64.30
40-70	30.15	N.A.	2.40
60-80	1.35	N.A.	0.10
70-80	0.16	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	1282.94	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	109.07
10-20	340.91
20-30	579.28
30-40	223.37
40-50	22.20
50-60	6.75
60-70	1.20
70-80	0.16
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

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-TL-L13-8TW-DIM-UNV-OW-OF-CS_4000K(2).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	114	111	109	106	111	109	107	105	105	103	102	101	100	98	98	97	96	94
2	108	104	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	88
3	103	97	92	88	101	95	91	87	93	89	86	90	87	85	88	86	83	82
4	98	91	85	81	96	90	85	81	87	83	80	85	82	79	84	81	78	77
5	93	85	79	75	92	84	79	75	82	78	74	81	77	74	79	76	73	72
6	89	80	74	70	87	79	74	70	78	73	69	76	72	69	75	71	68	67
7	84	75	69	65	83	75	69	65	73	68	65	72	68	64	71	67	64	63
8	80	71	65	61	79	70	65	61	69	64	61	68	64	60	67	63	60	59
9	76	67	61	57	75	66	61	57	66	60	57	65	60	57	64	60	57	55
10	73	63	58	54	72	63	57	54	62	57	54	61	57	53	61	56	53	52

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-TL-L13-8TW-DIM-UNV-OW-OF-CS_4000K(2).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

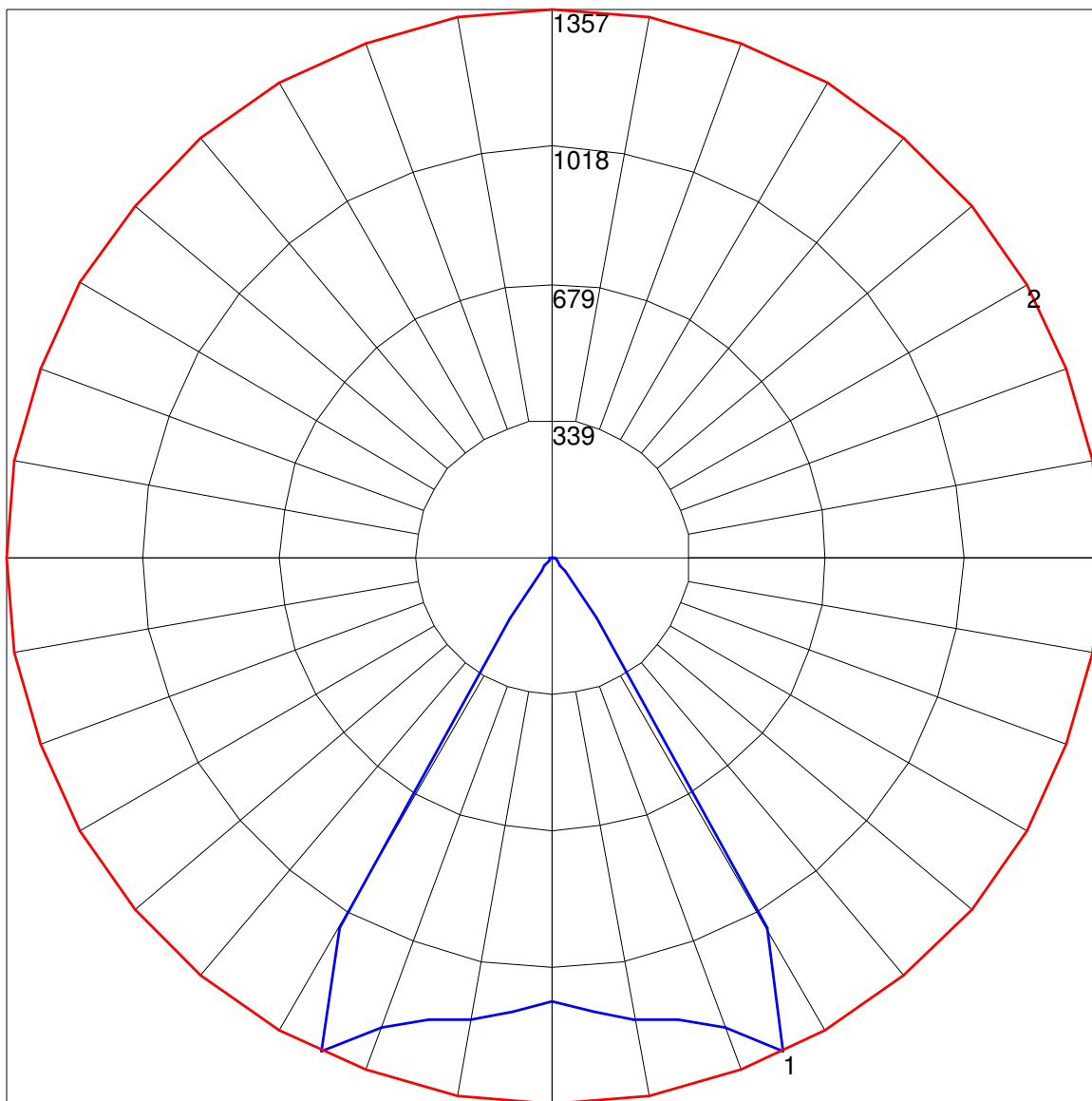
X=2H	Y=2H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	3H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	4H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	6H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	8H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	12H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

UGR Viewed Endwise

4H	2H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	3H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	4H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	6H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	8H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	12H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
8H	4H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	6H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	8H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	12H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
12H	4H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	6H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	8H	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

Maximum UGR = 0.9

POLAR GRAPH



Maximum Candela = 1357.218 Located At Horizontal Angle = 0, Vertical Angle = 25
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (25) (Through Max. Cd.)