



**IES INDOOR REPORT
PHOTOMETRIC FILENAME : PL4SA432UNIH.IES**

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST]BALLABS TEST NO. 14135.0
 [ISSUE DATE] 10/4/2008
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [MANUFAC] TECHNICAL CONSUMER PRODUCTS, INC.
 [LUMCAT] PL4SA432UNIH
 [LUMINAIRE] POLAR BAY ENCLOSED & GASKETTED MIRO4 4' 32W T8 4-LAMP HBF
 [LAMP] (4) 32-WATT T-8 LINEAR FLUORESCENTS
 [BALLAST] (1) ADVANCE BALLAST #ICN-4P32-SC WATTS=112 REFL=86%
 [_ MOUNTING) SUSPENDED
 [OTHER] THE 0 DEGREE PLANE IS PARALLEL WITH THE LAMPS
 [OTHER] TOTAL INPUT WATTS = 112 AT 120.0 VOLTS

CHARACTERISTICS

Total Rated Lamp Lumens	11800 (4 lamps)
Total Luminaire Efficiency	82.1 %
Luminaire Efficacy Rating (LER)	97
Total Luminaire Watts	100
Ballast Factor	1.00
CIE Type	Direct
Spacing Criteria (0-180)	1.24
Spacing Criteria (90-270)	1.06
Spacing Criteria (Diagonal)	1.20
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.23 ft
Luminous Width (90-270)	1.13 ft
Luminous Height	0.25 ft



LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6640	4493	4757
55	6040	4137	4556
65	4818	3876	4962
75	2948	3934	4492
85	1207	2820	3773

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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	3483.0	3483.0	3483.0	3483.0	3483.0
5	3519.0	3580.0	3659.0	3664.0	3660.0
10	3537.0	3668.0	3807.0	3827.0	3815.0
15	3437.0	3659.0	3675.0	3531.0	3473.0
20	3403.0	3688.0	3439.0	3185.0	3125.0
25	3135.0	3364.0	2966.0	2778.0	2733.0
30	2898.0	3003.0	2586.0	2398.0	2326.0
35	2713.0	2689.0	2298.0	2050.0	2008.0
40	2472.0	2335.0	1921.0	1845.0	1891.0
45	2200.0	2066.0	1685.0	1807.0	1819.0
50	1958.0	1685.0	1511.0	1558.0	1565.0
55	1662.0	1324.0	1348.0	1429.0	1523.0
60	1302.0	1005.0	1095.0	1355.0	1431.0
65	1015.0	814.0	1034.0	1280.0	1370.0
70	697.0	598.0	903.0	1222.0	1299.0
75	412.0	446.0	785.0	910.0	941.0
80	191.0	317.0	527.0	656.0	695.0
85	78.0	196.0	356.0	481.0	515.0
90	40.0	142.0	315.0	439.0	476.0
95	18.0	117.0	245.0	335.0	364.0
100	0.0	72.0	183.0	273.0	301.0
105	0.0	50.0	130.0	206.0	235.0
110	0.0	45.0	84.0	140.0	162.0
115	0.0	42.0	76.0	100.0	111.0
120	0.0	37.0	83.0	93.0	96.0
125	0.0	30.0	71.0	93.0	105.0
130	0.0	28.0	52.0	81.0	88.0
135	0.0	0.0	40.0	63.0	69.0
140	0.0	0.0	35.0	47.0	50.0
145	0.0	0.0	0.0	45.0	47.0
150	0.0	0.0	0.0	0.0	39.0
155	0.0	0.0	0.0	0.0	30.0
160	0.0	0.0	0.0	0.0	25.0
165	0.0	0.0	0.0	0.0	0.0
170	0.0	0.0	0.0	0.0	0.0
175	0.0	0.0	0.0	0.0	0.0
180	0.6	0.6	0.6	0.6	0.6

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2745.78	23.3	28.3
0-40	4219.38	35.8	43.6
0-60	6935.77	58.8	71.6
0-90	9138.44	77.4	94.3
90-120	452.99	3.8	4.7
90-130	506.86	4.3	5.2
90-150	546.04	4.6	5.6
90-180	548.11	4.6	5.7
0-180	9686.55	82.1	100

Total Luminaire Efficiency = 82.1%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	348.51
10-20	1009.24
20-30	1388.02
30-40	1473.6
40-50	1445.11
50-60	1271.29
60-70	1064.65
70-80	745.71
80-90	392.3
90-100	246.19
100-110	134.84
110-120	71.95
120-130	53.87
130-140	28.62
140-150	10.56
150-160	1.81
160-170	.26
170-180	.01

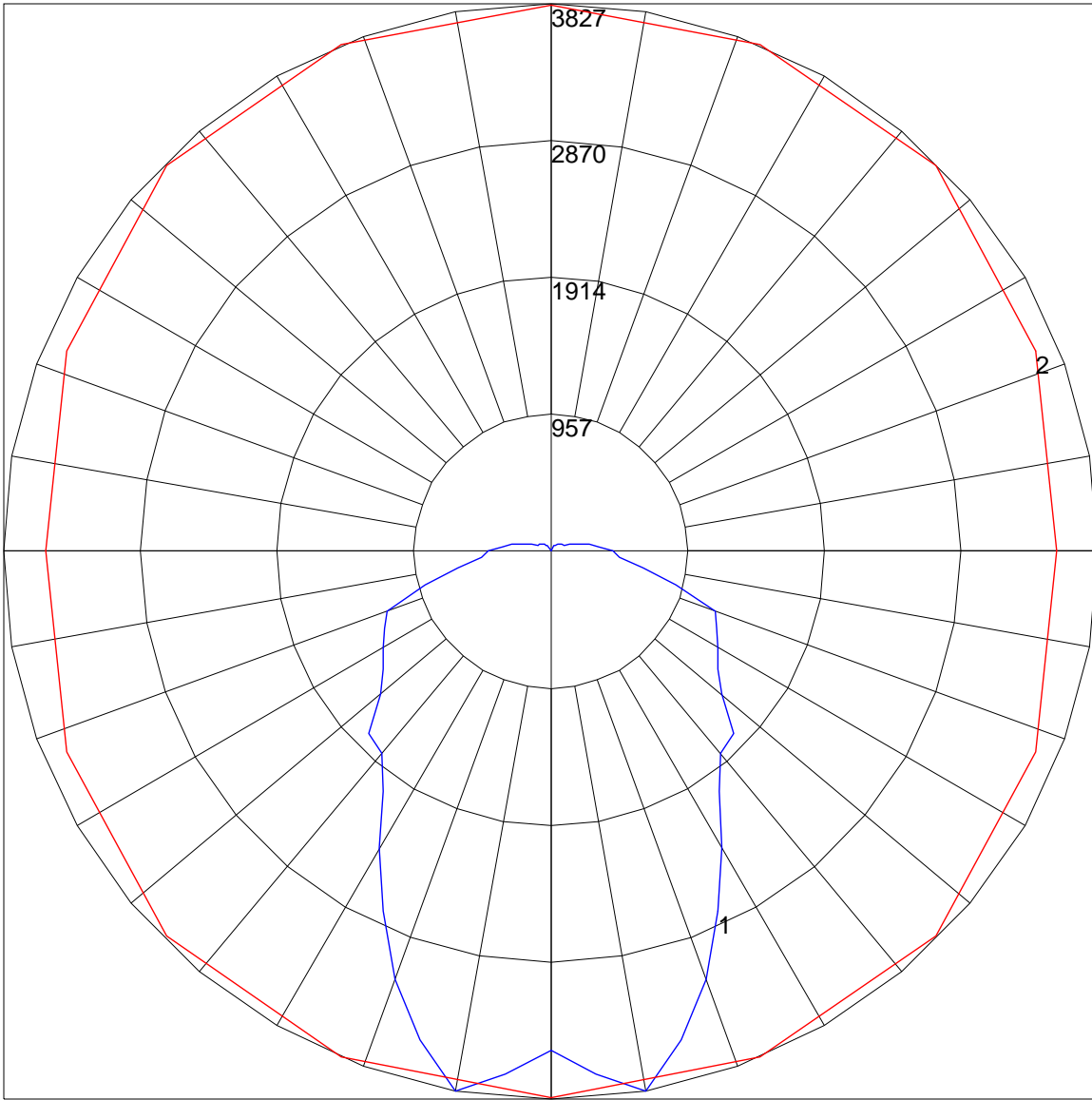
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	97	97	97	97	94	94	94	94	89	89	89	84	84	84	79	79	79	77
1	88	83	80	76	85	81	78	74	77	74	71	73	70	68	69	67	65	63
2	80	73	67	62	77	71	65	61	67	63	59	64	60	57	60	57	55	53
3	73	64	57	52	70	62	56	51	59	54	49	56	52	48	54	50	47	45
4	67	57	50	44	64	55	49	43	53	47	42	50	45	41	48	44	40	38
5	61	51	44	38	59	50	43	38	47	41	37	45	40	36	43	39	35	33
6	57	46	39	34	55	45	38	33	43	37	33	41	36	32	40	35	31	29
7	53	42	35	30	51	41	34	30	39	33	29	38	32	28	36	32	28	26
8	49	38	31	27	48	38	31	27	36	30	26	35	30	26	33	29	25	24
9	46	35	29	24	45	35	28	24	33	28	24	32	27	23	31	26	23	21
10	43	33	26	22	42	32	26	22	31	25	22	30	25	21	29	24	21	20

POLAR GRAPH



Maximum Candela = 3827 Located At Horizontal Angle = 67.5, Vertical Angle = 10
1 - Vertical Plane Through Horizontal Angles (67.5 - 247.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (10) (Through Max. Cd.)