

Indoor Photometric Report

IES Header Data

ISSUE DATE	
MANUFAC	Cerno
TEST	1
TEST LAB	Photopia for SOLIDWORKS 2021.0.10.11095 see: www.ltiophics.com/ies
TEST DATE	Monday, November 8, 2021 4:17:59 PM
LUMINAIRE	Volo Pendant 06-300-D-27P1
LAMP	LED 0.44W WHITE SMD (20MA)
LAMPCAT	SAW8KG0B

Input

Number of Lamps	32
Lumens per Lamp	81.96 lm
Total Input Lumens	2622.72 lm
Input Watts	29.44 W

Output

Total Output Lumens	1577.47 lm
Efficiency	60.15 %
Efficacy	53.58 lm/W

Luminous Dimensions

0° - 180° Size	0.38 ft
90° - 270° Size	1.98 ft
Height	1.98 ft

Photometry Information

Distribution	Direct
Photometry Type	C

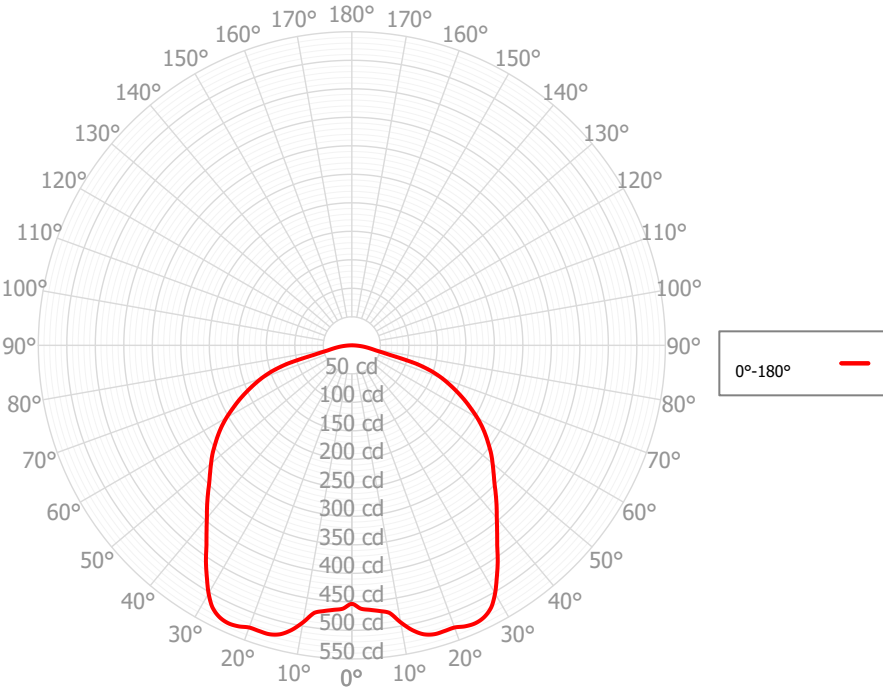
Spacing Criterion

Two luminaires, plane 0°	1.45
Two luminaires, plane 90°	1.45
Four luminaires	1.48

Full Beam Angle

0° - 180°	116.7°
90° - 270°	116.7°

Candela Polar Plot



Candela Distribution

	0.00°
0.00°	453.69
2.00°	462.37
4.00°	465.26
6.00°	468.73
8.00°	474.08
10.00°	493.55
12.00°	510.83
14.00°	522.50
16.00°	527.09
18.00°	526.92
20.00°	526.82
22.00°	531.61
24.00°	533.55
26.00°	530.24
28.00°	520.77
30.00°	502.60
32.00°	479.96
34.00°	457.71
36.00°	433.90
38.00°	413.95
40.00°	395.64
42.00°	379.52
44.00°	363.50
46.00°	347.84
48.00°	334.63
50.00°	322.38
52.00°	310.36
54.00°	296.81
56.00°	283.53
58.00°	269.48
60.00°	254.03
62.00°	237.00
64.00°	220.66
66.00°	203.37
68.00°	185.90
70.00°	168.18
72.00°	147.22
74.00°	118.61
76.00°	66.90

78.00°	43.78
80.00°	34.09
82.00°	26.15
84.00°	19.14
86.00°	11.56
88.00°	5.02
90.00°	1.05

Zonal Lumen Summary

Zone	Lumens	% Fixture
0° - 10°	45.70	2.90%
10° - 20°	147.74	9.37%
20° - 30°	243.18	15.42%
30° - 40°	279.18	17.70%
40° - 50°	275.46	17.46%
50° - 60°	259.18	16.43%
60° - 70°	209.39	13.27%
70° - 80°	100.35	6.36%
80° - 90°	17.28	1.10%
90° - 100°	0.00	0.00%
100° - 110°	0.00	0.00%
110° - 120°	0.00	0.00%
120° - 130°	0.00	0.00%
130° - 140°	0.00	0.00%
140° - 150°	0.00	0.00%
150° - 160°	0.00	0.00%
160° - 170°	0.00	0.00%
170° - 180°	0.00	0.00%
0° - 90°	1577.47	100.00%
90° - 180°	0.00	0.00%
0° - 180°	1577.47	100.00%

Indoor CU Table

Values are lumens delivered to the workplane from a single luminaire

	pfc	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	0%
	pcc	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	10%	0%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	30%
	0	1878	1878	1878	1878	1834	1834	1834	1834	1753	1753	1753	1678	1678	1678	1610	1610	1610	1577
	1	1720	1646	1580	1520	1677	1610	1550	1496	1543	1494	1448	1482	1441	1404	1425	1393	1362	1363

	2	1563	1434	1327	1238	1521	1404	1306	1223	1348	1265	1194	1296	1227	1167	1248	1191	1141	1165
	3	1424	1258	1129	1027	1384	1232	1113	1017	1185	1083	999	1142	1055	982	1101	1028	965	1005
	4	1302	1113	974	868	1266	1091	962	862	1052	939	849	1015	917	838	981	896	826	876
RCR	5	1196	993	850	745	1163	975	841	741	941	823	733	910	806	725	881	790	717	773
	6	1104	893	751	649	1074	878	744	646	849	729	640	822	716	634	797	703	629	688
	7	1023	809	670	572	995	796	664	570	771	652	566	748	641	561	727	631	557	618
	8	952	737	602	509	927	726	597	508	705	588	504	685	579	501	667	570	498	559
	9	889	676	545	457	866	666	542	456	648	534	454	631	526	451	615	519	449	510
	10	833	623	497	414	812	615	494	413	599	488	411	584	482	409	570	476	407	467

Cone of Light

Mtg Height	Light Level	Beam Diameter
6.0 ft	12.6 fc	19.5 ft
8.0 ft	7.1 fc	26.0 ft
10.0 ft	4.5 fc	32.4 ft
12.0 ft	3.2 fc	38.9 ft
14.0 ft	2.3 fc	45.4 ft
16.0 ft	1.8 fc	51.9 ft

UGR CIE 190:2010

Ceiling reflectance		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall reflectance		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Plane reflectance		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
2H	2H	13.5	15.2	13.9	15.5	15.8	11.5	13.1	11.8	13.4	13.7
	3H	15.3	16.8	15.7	17.1	17.4	12.9	14.3	13.2	14.7	15.0
	4H	15.7	17.1	16.1	17.5	17.9	13.2	14.6	13.6	14.9	15.3
	6H	15.8	17.1	16.2	17.5	17.8	13.2	14.5	13.6	14.9	15.2
	8H	15.8	17.0	16.2	17.4	17.8	13.2	14.4	13.6	14.8	15.2
	12H	15.8	17.0	16.2	17.4	17.8	13.2	14.3	13.6	14.7	15.2
4H	2H	13.8	15.2	14.2	15.6	15.9	12.1	13.5	12.5	13.8	14.2
	3H	15.7	16.9	16.1	17.3	17.7	13.6	14.8	14.1	15.2	15.6
	4H	16.2	17.2	16.6	17.6	18.1	14.0	15.0	14.4	15.5	15.9
	6H	16.3	17.2	16.7	17.6	18.1	14.0	15.0	14.5	15.4	15.9
	8H	16.3	17.1	16.7	17.6	18.0	14.0	14.9	14.5	15.3	15.8
	12H	16.3	17.1	16.8	17.5	18.0	14.0	14.8	14.5	15.3	15.7
8H	4H	16.2	17.1	16.7	17.5	18.0	14.1	15.0	14.6	15.4	15.9
	6H	16.3	17.0	16.8	17.5	18.0	14.2	14.9	14.7	15.4	15.9
	8H	16.3	16.9	16.8	17.4	17.9	14.2	14.8	14.7	15.3	15.8

	12H	16.3	16.9	16.8	17.4	17.9	14.2	14.7	14.7	15.2	15.8
12H	4H	16.2	17.0	16.7	17.4	17.9	14.1	14.9	14.6	15.4	15.8
	6H	16.3	16.9	16.8	17.4	17.9	14.2	14.8	14.7	15.3	15.8
	8H	16.3	16.9	16.8	17.3	17.9	14.2	14.7	14.7	15.2	15.8

Corrected UGR values based on total output energy

SHR = 1.0

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	6399	6399	6399
45.00°	1152	1325	3548
55.00°	853	988	2939
65.00°	587	684	2251
75.00°	250	293	1068
85.00°	41	49	200