

Indoor Photometric Report

IES Header Data

ISSUEDATE	
MANUFAC	
TEST	1
TESTLAB	Photopia for SOLIDWORKS 2024.0.5.12317 see: www.ltioptics.com/ies
TESTDATE	Tuesday, March 12, 2024 9:01:59 AM
LUMINAIRE	OBW-48L for photopia
LAMP	LED 15.98W 22° 32 LED ARRAY (630MA)
LAMPCAT	SI-B8T15156CWW

Input

Number of Lamps	4
Luminous flux per Lamp	2557 lm
Total Input Luminous flux	10227.98 lm
Input Watts	63 W

Output

Total Output Luminous flux	8081.9 lm
Efficiency	79.02 %
Efficacy	128.28 lm/W

Luminous Dimensions

0° - 180° Size	1.04 ft
90° - 270° Size	4.12 ft
Height	1.95 ft

Photometry Information

Distribution	Direct-Indirect
Photometry Type	C

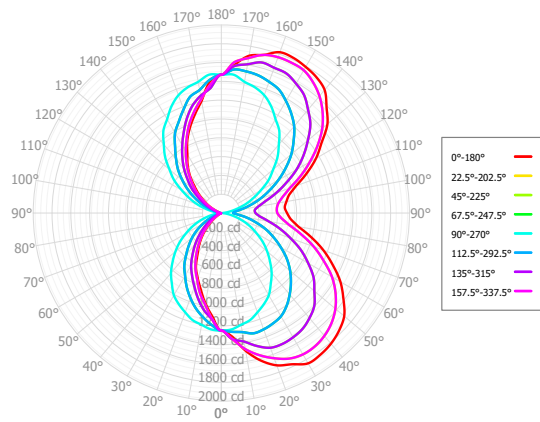
Spacing Criterion

Two luminaires, plane 0°	2
Two luminaires, plane 90°	1.19
Four luminaires	1.39

Full Beam Angle

0° - 180°	89.09°
90° - 270°	69.35°

Candela Polar Plot



Candela Distribution

	0.00°	22.50°	45.00°	67.50°	90.00°	112.50°	135.00°	157.50°	180.00°
0.00°	1249.91	1249.91	1249.91	1249.91	1249.91	1249.91	1249.91	1249.91	1249.91
5.00°	1318.37	1345.62	1346.23	1267.73	1242.16	1194.20	1133.77	1130.49	1102.51
10.00°	1486.95	1469.44	1387.57	1285.61	1206.66	1123.36	1051.57	989.18	976.13
15.00°	1624.16	1564.41	1463.54	1323.59	1178.62	1048.33	946.49	879.36	842.28
20.00°	1723.17	1642.88	1524.13	1316.11	1123.15	960.86	835.23	752.04	735.38
25.00°	1774.34	1707.47	1535.63	1296.02	1069.41	869.25	735.60	652.79	638.91
30.00°	1845.21	1735.33	1525.84	1267.82	1009.29	770.41	642.30	539.52	505.02
35.00°	1837.78	1731.87	1504.17	1208.19	916.58	686.40	530.27	431.08	408.14
40.00°	1813.39	1704.41	1457.92	1130.48	832.26	581.76	429.21	333.98	311.40
45.00°	1769.40	1656.06	1397.39	1046.42	732.43	489.64	330.76	240.94	218.76
50.00°	1705.50	1582.91	1290.98	954.58	636.69	402.60	240.12	155.85	128.81
55.00°	1584.11	1482.34	1198.15	851.25	539.64	312.73	160.82	81.82	62.24
60.00°	1461.85	1358.84	1066.37	731.43	434.23	219.45	88.23	33.46	22.06
65.00°	1307.70	1199.90	934.78	614.31	339.63	138.63	35.40	8.61	3.98
70.00°	1153.88	1046.43	782.85	501.61	245.14	69.63	9.38	2.64	2.11
75.00°	987.71	880.44	644.84	376.87	153.06	28.05	1.53	2.39	3.31
80.00°	831.75	732.98	511.15	270.92	84.09	6.72	5.76	21.88	29.18
85.00°	740.17	642.35	410.37	171.64	32.48	9.16	30.63	44.62	53.09
90.00°	698.65	595.52	363.62	124.84	13.75	15.59	29.98	38.52	41.95
95.00°	677.49	592.75	357.22	136.43	32.30	11.77	20.43	28.16	32.87
100.00°	702.53	617.41	398.28	205.92	88.50	29.43	19.34	24.70	26.40
105.00°	745.77	678.20	483.49	312.66	168.75	77.34	32.48	25.34	25.58
110.00°	846.28	774.48	618.47	435.78	273.00	145.81	71.43	41.60	39.44
115.00°	1001.93	928.41	762.07	561.18	373.53	233.63	140.82	90.48	81.11
120.00°	1162.50	1086.74	922.71	699.53	486.34	328.47	222.67	167.33	150.62
125.00°	1300.67	1248.74	1065.67	835.75	615.05	433.56	308.51	243.52	222.58
130.00°	1472.89	1400.75	1201.00	971.75	718.68	538.02	415.20	342.76	312.78
135.00°	1582.95	1522.23	1338.76	1087.24	845.71	650.01	508.46	433.62	404.87
140.00°	1708.74	1623.30	1434.46	1204.32	951.05	748.23	616.94	535.87	519.34
145.00°	1762.86	1698.93	1532.84	1294.80	1072.95	856.77	721.79	644.23	624.42
150.00°	1793.78	1752.76	1588.69	1374.98	1152.24	983.69	830.82	755.33	722.37
155.00°	1818.50	1763.50	1637.25	1448.61	1252.88	1070.95	945.90	873.03	855.17
160.00°	1819.37	1763.07	1643.61	1484.71	1333.07	1173.05	1070.73	999.52	971.79
165.00°	1740.52	1740.69	1657.25	1515.75	1383.26	1280.52	1183.28	1116.33	1085.44
170.00°	1697.65	1673.33	1606.13	1528.94	1416.65	1328.69	1266.24	1230.87	1209.60
175.00°	1582.43	1611.30	1567.94	1532.05	1476.84	1421.18	1332.75	1366.92	1400.43
180.00°	1470.65	1470.65	1470.65	1470.65	1470.65	1470.65	1470.65	1470.65	1470.65

Zonal Lumen Summary

Zone	Lumens	% Fixture
0° - 10°	124.39	1.54%
10° - 20°	338.83	4.19%
20° - 30°	521.10	6.45%
30° - 40°	633.87	7.84%
40° - 50°	661.78	8.19%

50° - 60°	606.76	7.51%
60° - 70°	486.70	6.02%
70° - 80°	344.73	4.27%
80° - 90°	241.43	2.99%
90° - 100°	216.87	2.68%
100° - 110°	292.44	3.62%
110° - 120°	451.36	5.58%
120° - 130°	615.07	7.61%
130° - 140°	708.83	8.77%
140° - 150°	701.61	8.68%
150° - 160°	592.47	7.33%
160° - 170°	395.94	4.90%
170° - 180°	147.70	1.83%
0° - 90°	3959.60	48.99%
90° - 180°	4122.30	51.01%
0° - 180°	8081.90	100.00%

Indoor CU Table

Values are lumens delivered to the workplane from a single luminaire

	ptc	20%	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	8640	8640	8640	8640	7960	7960	7960	7960	6690	6690	6690	5528	5528	5528	4461	4461	4461	3960	
	1	7798	7410	7063	6750	7159	6827	6527	6255	5734	5513	5311	4730	4572	4426	3805	3695	3593	3264	
	2	7070	6430	5902	5458	6478	5927	5467	5076	4982	4638	4341	4110	3859	3639	3304	3127	2969	2755	
	3	6431	5627	5005	4509	5887	5191	4645	4206	4370	3956	3615	3610	3303	3045	2905	2684	2495	2364	
	4	5872	4964	4299	3791	5373	4584	3997	3543	3868	3416	3059	3202	2863	2588	2583	2335	2130	2058	
	RCR	5	5382	4411	3733	3232	4925	4079	3477	3027	3450	2982	2623	2865	2509	2229	2319	2055	1843	1814
		6	4951	3947	3272	2789	4534	3655	3053	2616	3100	2628	2275	2583	2219	1941	2099	1826	1613	1616
		7	4572	3554	2894	2431	4190	3296	2704	2284	2804	2335	1994	2344	1980	1708	1912	1637	1426	1452
		8	4238	3220	2579	2139	3888	2990	2414	2013	2552	2091	1763	2141	1780	1516	1754	1479	1273	1316
		9	3942	2933	2315	1898	3621	2728	2170	1788	2335	1886	1571	1966	1611	1357	1617	1345	1145	1200
		10	3680	2687	2092	1697	3384	2502	1964	1601	2148	1712	1411	1814	1468	1223	1499	1231	1037	1102

Cone of Light

Mtg Height	Light Level	Beam Diameter
6.0 ft	34.7 fc	27.4 ft
8.0 ft	19.5 fc	36.6 ft
10.0 ft	12.5 fc	45.7 ft
12.0 ft	8.7 fc	54.9 ft
14.0 ft	6.4 fc	64.0 ft
16.0 ft	4.9 fc	73.2 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																							
2H	2H	14.3	15.1	15.2	16.1	17.4	2.0	2.8	2.9	3.8	5.1												
	3H	16.5	17.3	17.5	18.3	19.6	3.1	3.9	4.1	4.9	6.2												
	4H	17.6	18.3	18.5	19.3	20.6	3.4	4.2	4.4	5.2	6.5												
	6H	18.5	19.2	19.5	20.2	21.5	3.6	4.3	4.6	5.3	6.6												
	8H	19.0	19.6	20.0	20.7	22.0	3.6	4.3	4.6	5.3	6.6												
	12H	19.4	20.1	20.4	21.1	22.4	3.6	4.2	4.6	5.2	6.6												
4H	2H	14.4	15.1	15.4	16.1	17.4	1.7	2.5	2.7	3.4	4.8												
	3H	16.8	17.5	17.8	18.5	19.8	2.9	3.5	3.9	4.5	5.9												
	4H	18.0	18.6	19.0	19.6	21.0	3.2	3.8	4.2	4.8	6.1												

	6H	19.1	19.7	20.2	20.7	22.0	3.4	3.9	4.4	4.9	6.3
	8H	19.7	20.2	20.7	21.2	22.6	3.4	3.9	4.4	4.9	6.3
	12H	20.3	20.7	21.3	21.8	23.1	3.4	3.8	4.4	4.9	6.3
8H	4H	18.0	18.5	19.1	19.5	20.9	3.0	3.5	4.1	4.5	5.9
	6H	19.3	19.7	20.3	20.8	22.1	3.2	3.6	4.3	4.7	6.0
	8H	20.0	20.3	21.0	21.4	22.8	3.3	3.6	4.3	4.7	6.0
	12H	20.7	21.0	21.8	22.1	23.5	3.3	3.6	4.3	4.6	6.1
12H	4H	18.0	18.4	19.0	19.5	20.8	3.0	3.4	4.0	4.5	5.8
	6H	19.3	19.6	20.3	20.7	22.1	3.2	3.5	4.2	4.6	6.0
	8H	20.0	20.3	21.1	21.4	22.8	3.2	3.5	4.3	4.6	6.0

Corrected UGR values based on total output energy
SHR = 1.0

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	3151	3151	3151
45.00°	2187	1868	1772
55.00°	1887	1558	1415
65.00°	1548	1219	1005
75.00°	1198	870	538
85.00°	950	592	146