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Indoor Photometric Report

IES Header Data

ISSUE DATE	
MANUFAC	
TEST	1
TEST LAB	Photopia for SOLIDWORKS 2022.0.8.11443 see: www.ltiophics.com/ies
TEST DATE	Thursday, March 31, 2022 9:55:02 AM
LUMINAIRE	Calx, photo, assy
LAMP	LED 12W PRO SERIES A19
LAMPCAT	A-19-75W-P1-27K-E26-U1

Input

Number of Lamps	4
Luminous flux per Lamp	1099.99 lm
Total Input Luminous flux	4399.98 lm
Input Watts	53.32 W

Output

Total Output Luminous flux	2608.75 lm
Efficiency	59.29 %
Efficacy	48.93 lm/W

Luminous Dimensions

0° - 180° Size	0.53 m
90° - 270° Size	0.53 m
Height	0.58 m

Photometry Information

Distribution	Semi-Direct
Photometry Type	C

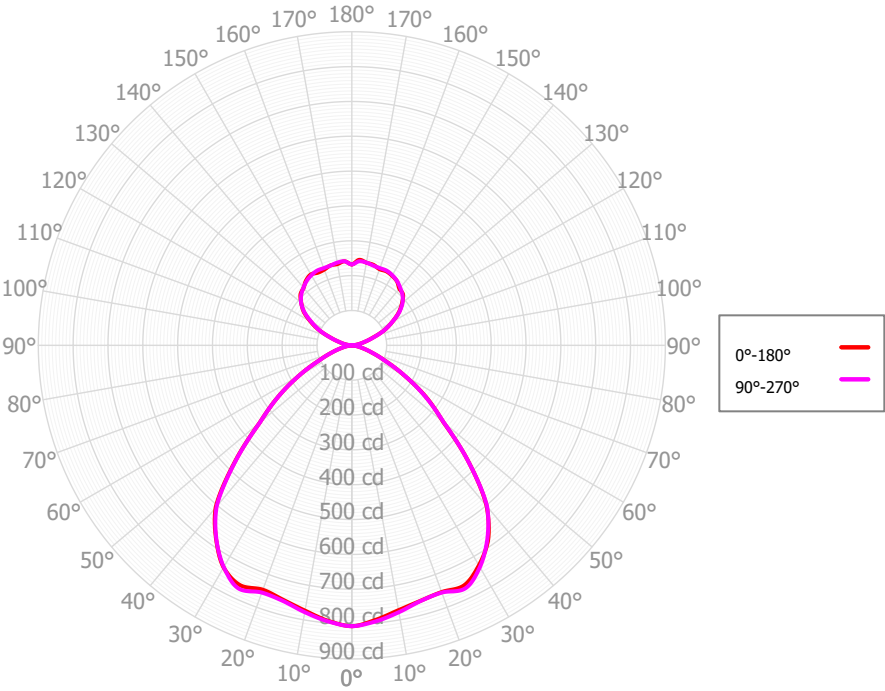
Spacing Criterion

Two luminaires, plane 0°	1.32
Two luminaires, plane 90°	1.32
Four luminaires	1.32

Full Beam Angle

0° - 180°	95.52°
90° - 270°	95.49°

Candela Polar Plot



Candela Distribution

	0.00°	90.00°	180.00°
0.00°	806.24	806.24	806.24
5.00°	790.92	795.25	793.65
10.00°	772.02	777.92	773.48
15.00°	759.50	760.25	756.99
20.00°	753.80	755.37	746.73
25.00°	760.80	770.04	759.53
30.00°	729.51	735.27	736.20
35.00°	682.15	678.32	679.34
40.00°	601.94	603.81	608.12
45.00°	474.81	474.46	477.11
50.00°	342.87	344.40	345.28
55.00°	261.87	259.03	259.35
60.00°	175.85	176.84	177.10
65.00°	106.91	104.89	106.06
70.00°	61.35	62.39	62.85
75.00°	32.93	33.82	33.72
80.00°	14.92	14.81	14.89
85.00°	3.47	3.38	3.21
90.00°	0.00	0.00	0.00
95.00°	7.51	7.33	7.51
100.00°	20.22	22.11	21.19
105.00°	38.18	36.89	38.12
110.00°	63.37	66.18	64.98
115.00°	103.00	102.64	103.99
120.00°	133.72	133.66	136.87
125.00°	164.61	166.44	168.87
130.00°	188.23	190.09	189.52
135.00°	207.59	205.36	208.21
140.00°	212.34	215.97	215.60
145.00°	225.23	225.85	228.27
150.00°	230.84	232.35	234.88
155.00°	234.38	236.43	230.13
160.00°	232.70	235.80	231.39
165.00°	239.19	237.07	237.37
170.00°	240.98	241.15	237.00
175.00°	246.39	242.20	242.15
180.00°	232.32	232.32	232.32

Zonal Lumen Summary

Zone	Lumens	% Fixture
0° - 10°	79.64	3.05%
10° - 20°	215.18	8.25%
20° - 30°	348.40	13.35%
30° - 40°	420.72	16.13%
40° - 50°	362.94	13.91%
50° - 60°	230.86	8.85%
60° - 70°	110.46	4.23%
70° - 80°	37.81	1.45%
80° - 90°	5.84	0.22%
90° - 100°	9.83	0.38%
100° - 110°	42.43	1.63%
110° - 120°	99.91	3.83%
120° - 130°	146.50	5.62%
130° - 140°	157.74	6.05%
140° - 150°	140.89	5.40%
150° - 160°	108.09	4.14%
160° - 170°	67.07	2.57%
170° - 180°	24.43	0.94%
0° - 90°	1811.86	69.45%
90° - 180°	796.89	30.55%
0° - 180°	2608.75	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	2916	2916	2916	2916	2755	2755	2755	2755	2456	2456	2456	2182	2182	2182	1930	1930	1930	1812
	1	2701	2600	2509	2427	2552	2465	2385	2314	2211	2152	2097	1979	1935	1894	1764	1733	1704	1629
	2	2487	2310	2163	2039	2349	2194	2064	1954	1977	1877	1791	1777	1701	1635	1592	1536	1486	1446
	3	2289	2058	1878	1736	2162	1958	1799	1670	1771	1645	1542	1598	1500	1418	1438	1363	1299	1284
	4	2109	1841	1645	1495	1992	1755	1579	1442	1593	1452	1339	1442	1330	1239	1302	1215	1142	1146
RCR	5	1947	1655	1452	1301	1840	1581	1396	1258	1439	1289	1174	1307	1186	1091	1184	1088	1011	1028
	6	1802	1496	1291	1143	1704	1430	1244	1108	1306	1152	1037	1190	1064	968	1082	980	900	928
	7	1672	1359	1155	1013	1582	1301	1115	983	1191	1036	923	1089	961	865	993	888	807	842
	8	1556	1240	1041	904	1474	1189	1006	879	1092	938	828	1000	872	778	915	808	728	768
	9	1453	1137	944	813	1378	1092	913	791	1005	853	747	923	795	704	846	739	661	703
	10	1360	1047	860	735	1291	1007	833	716	929	780	678	855	729	640	786	680	603	648

Cone of Light

Mtg Height	Light Level	Beam Diameter
2.0 m	201.6 lx	4.4 m
2.5 m	129.0 lx	5.5 m
3.0 m	89.6 lx	6.6 m
3.5 m	65.8 lx	7.7 m
4.0 m	50.4 lx	8.8 m
4.5 m	39.8 lx	9.9 m
5.0 m	32.2 lx	11.0 m
5.5 m	26.7 lx	12.1 m
6.0 m	22.4 lx	13.2 m

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	6.3	7.2	7.0	8.0	9.0	6.2	7.2	7.0	8.0	9.0
	3H	6.6	7.5	7.4	8.3	9.3	6.6	7.5	7.4	8.3	9.3
	4H	6.7	7.5	7.5	8.3	9.3	6.7	7.5	7.5	8.3	9.3
	6H	6.6	7.4	7.4	8.2	9.2	6.6	7.4	7.4	8.2	9.2
	8H	6.6	7.3	7.4	8.1	9.2	6.6	7.3	7.4	8.1	9.1
	12H	6.5	7.2	7.4	8.0	9.1	6.5	7.2	7.4	8.0	9.1
4H	2H	6.3	7.1	7.1	7.9	8.9	6.3	7.1	7.1	7.9	8.9
	3H	6.8	7.4	7.6	8.3	9.3	6.7	7.4	7.6	8.3	9.3
	4H	6.8	7.4	7.7	8.3	9.3	6.8	7.4	7.7	8.3	9.3
	6H	6.8	7.3	7.7	8.2	9.2	6.8	7.3	7.7	8.2	9.2
	8H	6.8	7.2	7.6	8.1	9.2	6.8	7.2	7.6	8.1	9.2
	12H	6.7	7.1	7.6	8.0	9.1	6.7	7.1	7.6	8.0	9.1
8H	4H	6.7	7.2	7.6	8.1	9.2	6.7	7.2	7.6	8.1	9.2
	6H	6.7	7.1	7.6	8.0	9.1	6.7	7.1	7.6	8.0	9.1
	8H	6.7	7.0	7.6	7.9	9.0	6.7	7.0	7.6	7.9	9.0
	12H	6.6	6.9	7.5	7.8	9.0	6.6	6.9	7.5	7.8	9.0
12H	4H	6.7	7.1	7.6	8.0	9.1	6.7	7.1	7.6	8.0	9.1
	6H	6.7	7.0	7.6	7.9	9.0	6.7	7.0	7.6	7.9	9.0
	8H	6.6	6.9	7.5	7.8	9.0	6.6	6.9	7.5	7.8	9.0

Corrected UGR values based on total output energy
SHR = 1.0

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	2897	2897	2897
45.00°	1149	944	1149
55.00°	638	507	631
65.00°	271	208	266
75.00°	90	68	92
85.00°	11	8	10