



# Report of Test

## LLIA002372-015

Catalog Number: FL-290PCS-SFYK - 290W Setting - 4000K Setting  
Knuckle or trunion mounted, formed aluminum housing, white plastic reflector, clear glass enclosure, plastic optics over top of LEDs  
960 LEDs, 480 cool white and 480 warm white LEDs  
One LiFud LF-FAC320 LED driver  
120.0Vac, 60.00Hz, 2.356A, 281.9W, 0.998PF, 4.7%THD(i)



### Performance Summary

Total Light Output	42609	lm	Illuminance at 10m	191.3 lux
Luminaire Power	281.9	W	Beam Distance	276.7 Meters (to 0.25 lux)
Luminous Efficacy	151.1	lm/W	Maximum Intensity	19134.7 cd
Beam Spread (50%)	86.3° V x 108.6° H			
Field Spread (10%)	125.8° V x 149.9° H			
NEMA Type	7H x 6V			

**PREPARED FOR : Topaz Lighting, A Southwire Company, 925 Waverly Ave, Holtsville, NY**



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**Floodlight Summary:**

Report data based on absolute values as measured.

Maximum Luminous Intensity 19134.7 cd  
(Luminaire orientation as tested.) 1.1° vertical  
-1.0° horizontal

Beam Spread At 10% of max intensity 125.8° V x 149.9° H  
At 50% of max intensity 86.3° V x 108.6° H  
At 90% of max intensity 48.9° V x 55.2° H

Beam Flux Total 42609 lm  
To 10% of max intensity 41064 lm  
To 50% of max intensity 32743 lm  
To 90% of max intensity 11958 lm

Total Light Output 42608.7 lm

Signed:

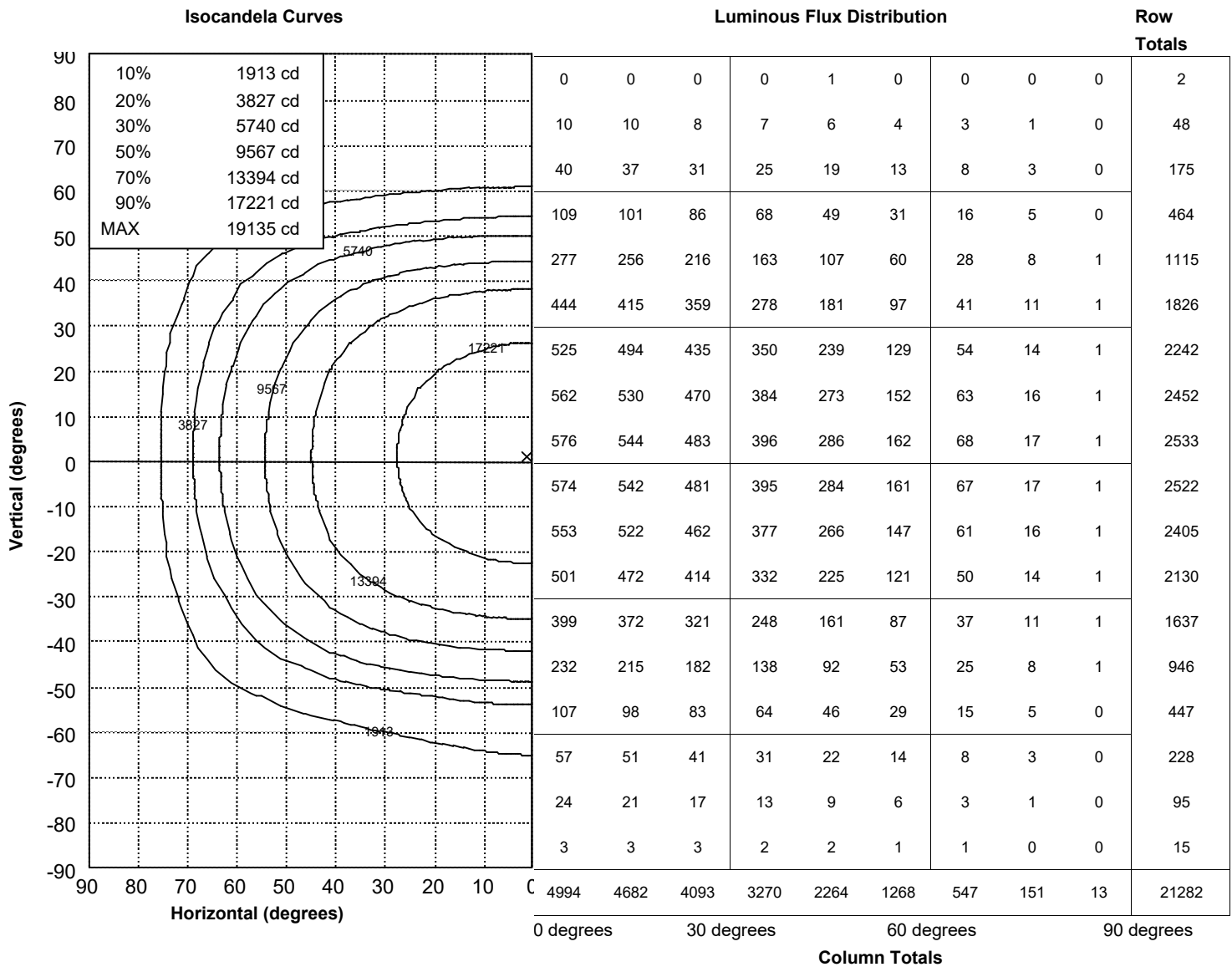
\_\_\_\_\_  
Authorized Signatory

Date of test 8-Jul-2024  
Date of report 8-Jul-2024



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Note: Left and right sides of photometric data have been averaged.  
Lumen values are tabulated as absolute lumen values.  
Candela values are tabulated as absolute candela values.



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Vertical Angle (degrees)	Left Side Horizontal Angle (degrees)									Lumen Totals
	-90	-60	-30	0	30	60	90	120	150	
-90	15.3 0.1	37.6 0.3	47.6 0.6	58.6 1.1	66.4 1.7	72.6 2.2	89.1 2.8	88.8 3.2	93.9 3.5	15
	43.7 0.2	115.7 1.0	247.1 3.3	340.8 6.0	403.0 8.9	500.0 12.8	603.3 17.1	706.3 21.3	787.3 24.3	95
	71.3 0.2	323.1 2.8	623.4 8.0	794.7 14.3	1007.7 22.0	1239.2 31.3	1492.5 41.4	1721.1 50.8	1884.9 57.0	228
-60	101.7 0.4	641.3 5.2	1111.5 14.9	1628.6 28.8	2095.9 45.6	2516.4 64.0	2935.7 82.7	3263.1 98.0	3463.9 107.1	447
	155.0 0.7	959.1 7.8	1926.0 25.2	2936.4 53.0	4176.0 91.9	5466.8 138.3	6513.9 182.1	7210.8 215.0	7571.0 232.5	946
	201.5 1.0	1282.0 10.7	2870.9 37.4	4930.4 86.8	7439.0 160.9	9993.3 247.8	11742.4 321.2	12780.6 372.5	13271.6 398.7	1637
-30	238.5 1.2	1595.6 13.6	3811.0 50.2	6872.5 120.9	10475.2 225.0	13402.8 331.6	15100.1 414.3	16119.9 471.6	16612.9 501.2	2130
	264.8 1.3	1835.7 15.9	4573.5 60.7	8342.4 147.0	12412.9 266.0	15164.1 376.5	16804.6 461.9	17816.1 522.1	18320.4 553.5	2405
	278.6 1.4	1976.2 17.2	5024.9 66.8	9132.1 160.7	13237.6 283.8	15876.4 394.8	17476.8 480.8	18481.2 542.1	18989.2 574.1	2522
0	278.4 1.4	1993.9 17.4	5092.4 67.6	9223.2 162.3	13316.4 285.5	15942.1 396.5	17536.2 482.5	18539.0 543.9	19046.6 575.9	2533
	264.1 1.4	1884.2 16.4	4758.1 63.1	8629.9 152.0	12728.5 272.8	15451.9 383.9	17078.1 469.7	18084.4 530.4	18590.2 562.1	2452
	236.9 1.2	1661.8 14.2	4077.1 53.7	7358.1 129.5	11141.4 239.2	14131.8 349.9	15846.7 435.1	16871.3 494.0	17388.7 524.9	2242
30	198.4 1.0	1347.0 11.3	3147.8 41.1	5500.6 96.8	8367.3 180.6	11238.9 277.9	13156.2 358.9	14252.1 414.7	14787.6 443.6	1826
	149.7 0.7	1006.9 8.2	2114.8 27.8	3351.1 60.3	4874.7 106.8	6490.5 163.1	7795.1 216.2	8652.4 255.6	9093.5 276.6	1115
	93.5 0.4	659.3 5.4	1152.9 15.5	1735.5 30.6	2235.8 48.7	2634.8 67.6	3018.7 86.0	3301.5 100.7	3474.4 109.2	464
60	64.2 0.2	304.8 2.7	591.1 7.5	695.1 12.8	852.5 18.8	987.7 25.2	1107.1 31.3	1214.1 36.6	1287.4 39.9	175
	39.0 0.1	85.1 0.8	198.6 2.6	239.7 4.2	243.5 5.5	255.1 6.8	276.6 8.3	308.7 9.6	327.7 10.5	48
	13.5 0.0	26.3 0.2	23.5 0.3	21.8 0.5	21.0 0.6	10.5 0.4	7.4 0.2	2.0 0.1	0.5 0.0	2
90	13	151	547	1268	2264	3270	4093	4682	4994	21282

**Lumen Totals**

Legend:

<b>candelas</b>
lumens

Standard table of intensity and illuminance in accordance with IES procedures.  
Angular data is shown with the polar axis horizontal.  
Luminous flux expressed as lumens within marked zones.  
Luminous intensity expressed as candelas at centre of zones.



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Vertical Angle (degrees)	Right Side Horizontal Angle (degrees)									Lumen Totals
	0	30	60	90	120	150	180	210	240	
-90	93.9 3.5	88.8 3.2	89.1 2.8	72.6 2.2	66.4 1.7	58.6 1.1	47.6 0.6	37.6 0.3	15.3 0.1	15
	787.3 24.3	706.3 21.3	603.3 17.1	500.0 12.8	403.0 8.9	340.8 6.0	247.1 3.3	115.7 1.0	43.7 0.2	95
	1884.9 57.0	1721.1 50.8	1492.5 41.4	1239.2 31.3	1007.7 22.0	794.7 14.3	623.4 8.0	323.1 2.8	71.3 0.2	228
-60	3463.9 107.1	3263.1 98.0	2935.7 82.7	2516.4 64.0	2095.9 45.6	1628.6 28.8	1111.5 14.9	641.3 5.2	101.7 0.4	447
	7571.0 232.5	7210.8 215.0	6513.9 182.1	5466.8 138.3	4176.0 91.9	2936.4 53.0	1926.0 25.2	959.1 7.8	155.0 0.7	946
	13271.6 398.7	12780.6 372.5	11742.4 321.2	9993.3 247.8	7439.0 160.9	4930.4 86.8	2870.9 37.4	1282.0 10.7	201.5 1.0	1637
-30	16612.9 501.2	16119.9 471.6	15100.1 414.3	13402.8 331.6	10475.2 225.0	6872.5 120.9	3811.0 50.2	1595.6 13.6	238.5 1.2	2130
	18320.4 553.5	17816.1 522.1	16804.6 461.9	15164.1 376.5	12412.9 266.0	8342.4 147.0	4573.5 60.7	1835.7 15.9	264.8 1.3	2405
	18989.2 574.1	18481.2 542.1	17476.8 480.8	15876.4 394.8	13237.6 283.8	9132.1 160.7	5024.9 66.8	1976.2 17.2	278.6 1.4	2522
0	19046.6 575.9	18539.0 543.9	17536.2 482.5	15942.1 396.5	13316.4 285.5	9223.2 162.3	5092.4 67.6	1993.9 17.4	278.4 1.4	2533
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	17388.7 524.9	16871.3 494.0	15846.7 435.1	14131.8 349.9	11141.4 239.2	7358.1 129.5	4077.1 53.7	1661.8 14.2	236.9 1.2	2242
30	14787.6 443.6	14252.1 414.7	13156.2 358.9	11238.9 277.9	8367.3 180.6	5500.6 96.8	3147.8 41.1	1347.0 11.3	198.4 1.0	1826
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	3474.4 109.2	3301.5 100.7	3018.7 86.0	2634.8 67.6	2235.8 48.7	1735.5 30.6	1152.9 15.5	659.3 5.4	93.5 0.4	464
60	1287.4 39.9	1214.1 36.6	1107.1 31.3	987.7 25.2	852.5 18.8	695.1 12.8	591.1 7.5	304.8 2.7	64.2 0.2	175
	327.7 10.5	308.7 9.6	276.6 8.3	255.1 6.8	243.5 5.5	239.7 4.2	198.6 2.6	85.1 0.8	39.0 0.1	48
	0.5 0.0	2.0 0.1	7.4 0.2	10.5 0.4	21.0 0.6	21.8 0.5	23.5 0.3	26.3 0.2	13.5 0.0	2
90	4994	4682	4093	3270	2264	1268	547	151	13	21282

**Lumen Totals**

Legend:

candelas
lumens

Standard table of intensity and illuminance in accordance with IES procedures.  
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**Candela trace through origin.**

Vertical Trace			
Angle	Intensity (cd)	Angle	Intensity (cd)
90.0	0.00	0.0	19109.59
87.0	0.00	-3.0	19072.69
84.0	0.00	-6.0	18991.10
81.0	1.05	-9.0	18852.86
78.0	97.83	-12.0	18654.87
75.0	362.33	-15.0	18379.53
72.0	563.76	-18.0	17998.34
69.0	823.15	-21.0	17503.83
66.0	1146.90	-24.0	16906.50
63.0	1552.69	-27.0	16186.76
60.0	2066.77	-30.0	15318.39
57.0	2771.57	-33.0	14240.95
54.0	3772.95	-36.0	12907.35
51.0	5208.50	-39.0	11310.22
48.0	7066.34	-42.0	9495.89
45.0	9117.86	-45.0	7551.90
42.0	11299.87	-48.0	5886.12
39.0	13134.71	-51.0	4606.48
36.0	14515.35	-54.0	3677.80
33.0	15567.47	-57.0	2983.24
30.0	16407.45	-60.0	2496.25
27.0	17080.31	-63.0	2133.33
24.0	17627.78	-66.0	1792.31
21.0	18072.10	-69.0	1463.65
18.0	18396.07	-72.0	1130.53
15.0	18643.82	-75.0	798.01
12.0	18830.28	-78.0	499.14
9.0	18968.51	-81.0	270.35
6.0	19059.95	-84.0	112.36
3.0	19107.88	-87.0	29.99
0.0	19109.59	-90.0	6.88

Horizontal Trace			
Angle	Intensity (cd)	Angle	Intensity (cd)
90.0	1.31	0.0	19109.59
87.0	101.36	-3.0	19111.10
84.0	340.95	-6.0	19049.08
81.0	857.48	-9.0	18947.91
78.0	1374.01	-12.0	18785.22
75.0	1890.54	-15.0	18570.89
72.0	2830.89	-18.0	18324.16
69.0	3771.23	-21.0	18026.63
66.0	4711.57	-24.0	17686.76
63.0	5871.03	-27.0	17298.08
60.0	7140.04	-30.0	16859.04
57.0	8409.05	-33.0	16368.02
54.0	9692.91	-36.0	15776.02
51.0	11006.48	-39.0	15104.72
48.0	12320.05	-42.0	14354.12
45.0	13384.00	-45.0	13384.00
42.0	14354.12	-48.0	12320.05
39.0	15104.72	-51.0	11006.48
36.0	15776.02	-54.0	9692.91
33.0	16368.02	-57.0	8409.05
30.0	16859.04	-60.0	7140.04
27.0	17298.08	-63.0	5871.03
24.0	17686.76	-66.0	4711.57
21.0	18026.63	-69.0	3771.23
18.0	18324.16	-72.0	2830.89
15.0	18570.89	-75.0	1890.54
12.0	18785.22	-78.0	1374.01
9.0	18947.91	-81.0	857.48
6.0	19049.08	-84.0	340.95
3.0	19111.10	-87.0	101.36
0.0	19109.59	-90.0	1.31

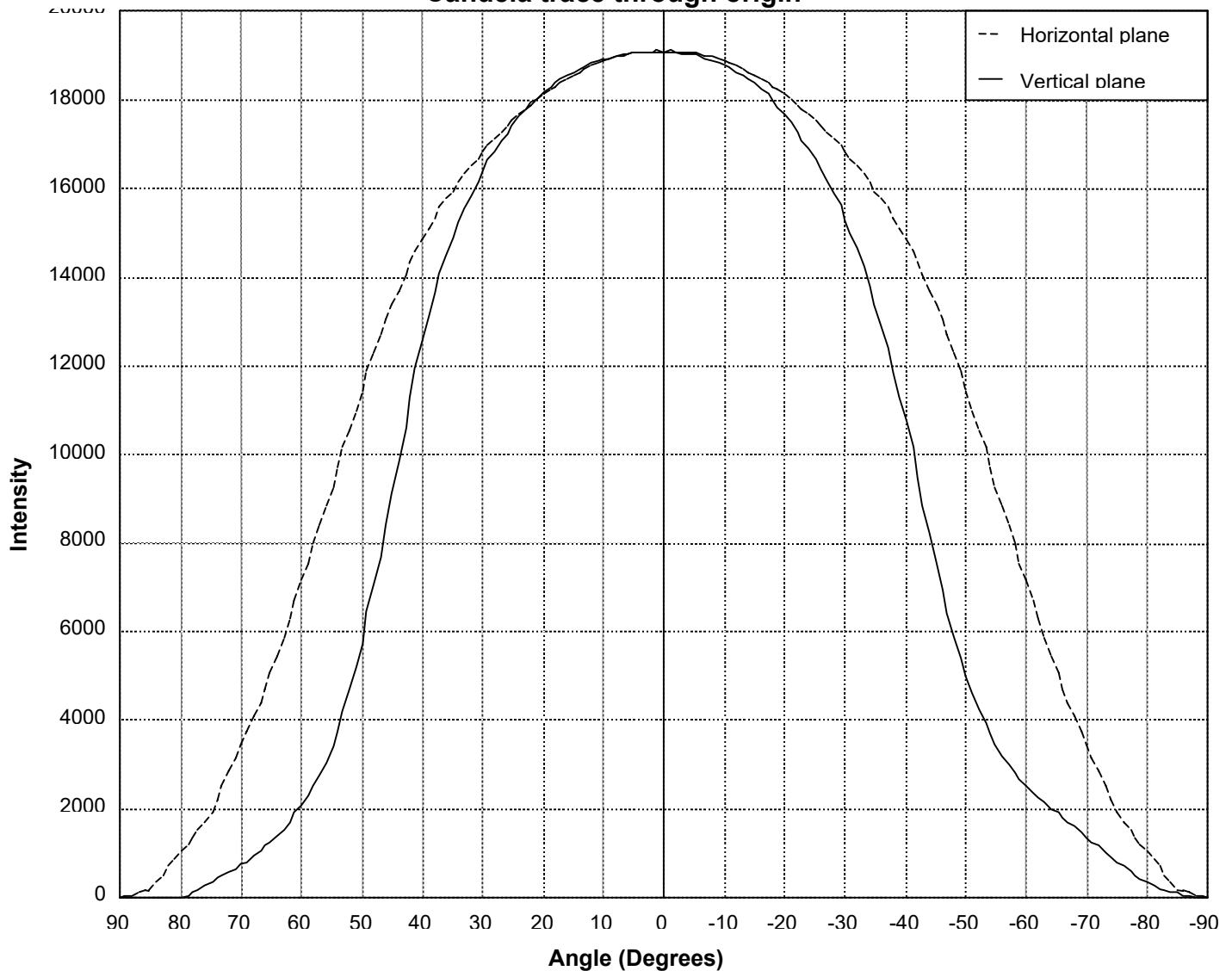
Note: Luminaire orientation as tested.  
The left and right sides of photometric data have been averaged.



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**Candela trace through origin**



Note: The intensity units are expressed as candelas.  
The left and right sides of photometric data have been averaged.  
Both the vertical and the horizontal trace pass through the nadir.

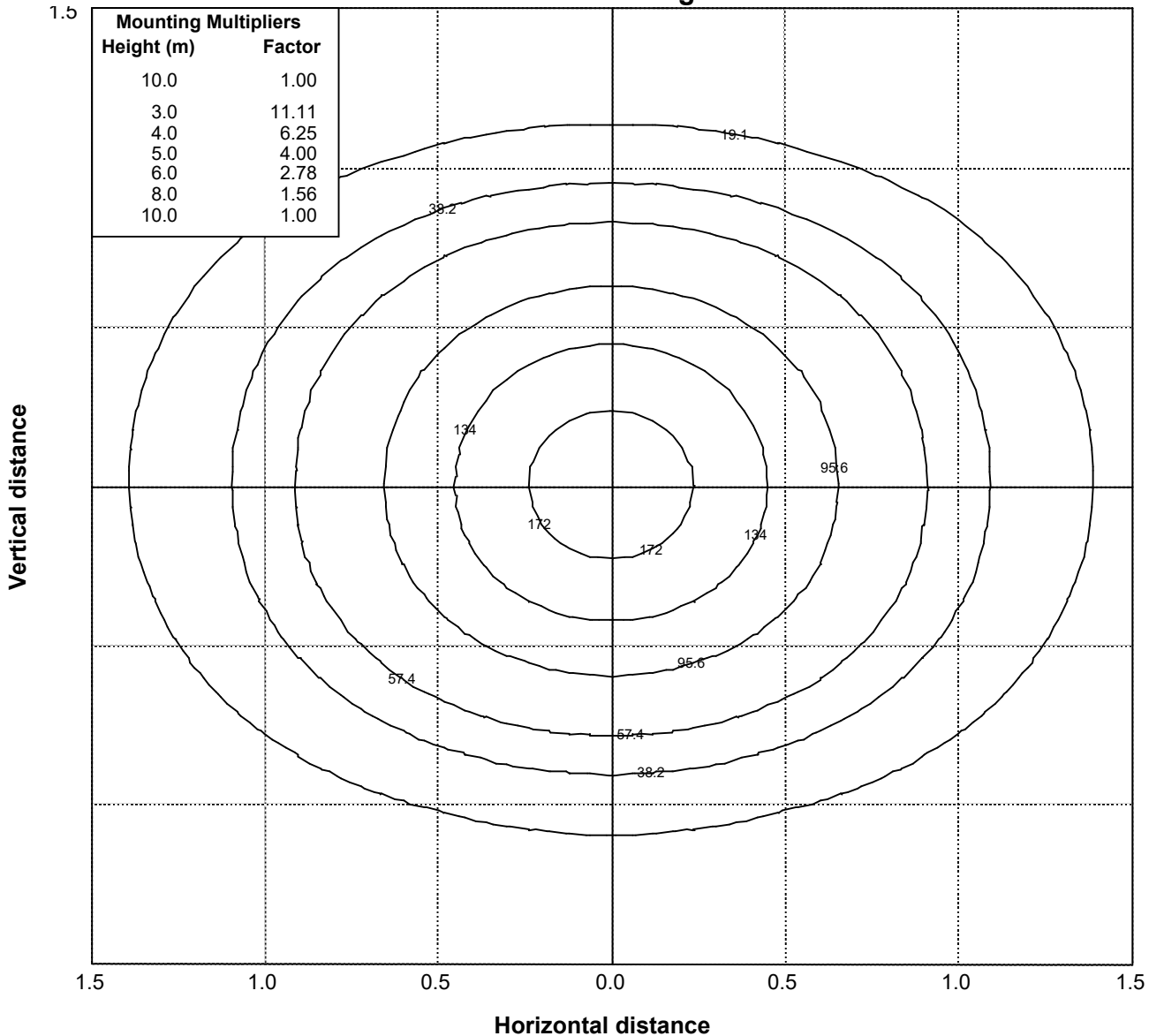




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**Isolux Diagram**



Note: The isolux levels are based on a mounting height of H = 10.0 metres. Grid values show multiples of mounting height.  
The isolux contours are set to 10%, 20%, 30%, 50%, 70%, 90% of the maximum.  
The isolux contour units are expressed as lux. The left and right sides of photometric data have been averaged.

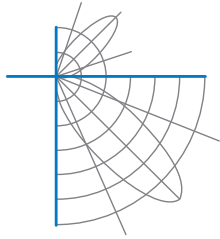




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**Test Distance** 9.5 m  
**Test Temperature** 25.5 °C

**Notes** The laboratory has not participated in the selection of samples to be tested. All testing is performed on the understanding that the significance of the report is limited to the extent that the test sample is representative of production units.

Tested in accordance with the applicable sections of publications: IES LM-79-19, IES LM-75-19, and IES LM-35-20.

The luminous intensity values, and other derived quantities, contained in this report are based on the absolute data, as measured.

Prorating the performance of the sample for the use of other component combinations (such as lamp / LED / Ballast / driver), or for use in different environmental conditions than that tested, may produce erroneous results.

This report is free of erasures and corrections.

Photometric intensity values are reported using the CIE (B,  $\beta$ ) coordinate system as defined in CIE publication number 121.

This report may contain data that are not covered by the NVLAP accreditation. Quantities marked with \* are not covered.

This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the Federal Government.