



# Report of Test

## LLIA002378-002

Catalog Number: SP-500PS-50K - 400W Setting  
Pole mounted, cast aluminum housing, clear plastic enclosure.  
504 white LEDs with plastic optics in front of each.  
One uPowerTek BLD-500-C230-ENU LED driver  
120.0Vac, 60.00Hz, 3.435A, 410.2W, 0.995PF, 8.1%THD(i)



### Performance Summary

Total Light Output	63328	lm	Illuminance at 10m	1307.0 lux
Luminaire Power	410.1	W	Beam Distance	723.0 Meters (to 0.25 lux)
Luminous Efficacy	154.4	lm/W		
Beam Spread (50%)	30.6° V x 32.6° H		Maximum Intensity	130700 cd
Field Spread (10%)	65.0° V x 65.8° H			
NEMA Type	5H x 4V			

**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 (Luminaire orientation as tested.)		130700.0 cd		
			0.0° vertical	
			0.0° horizontal	
Beam Spread	At 10% of max intensity	65.0° V	x	65.8° H
	At 50% of max intensity	30.6° V	x	32.6° H
	At 90% of max intensity	11.5° V	x	12.0° H
Beam Flux	Total	63328	lm	
	To 10% of max intensity	47526	lm	
	To 50% of max intensity	22969	lm	
	To 90% of max intensity	4001	lm	
	Total Light Output	63328.1	lm	

Signed:

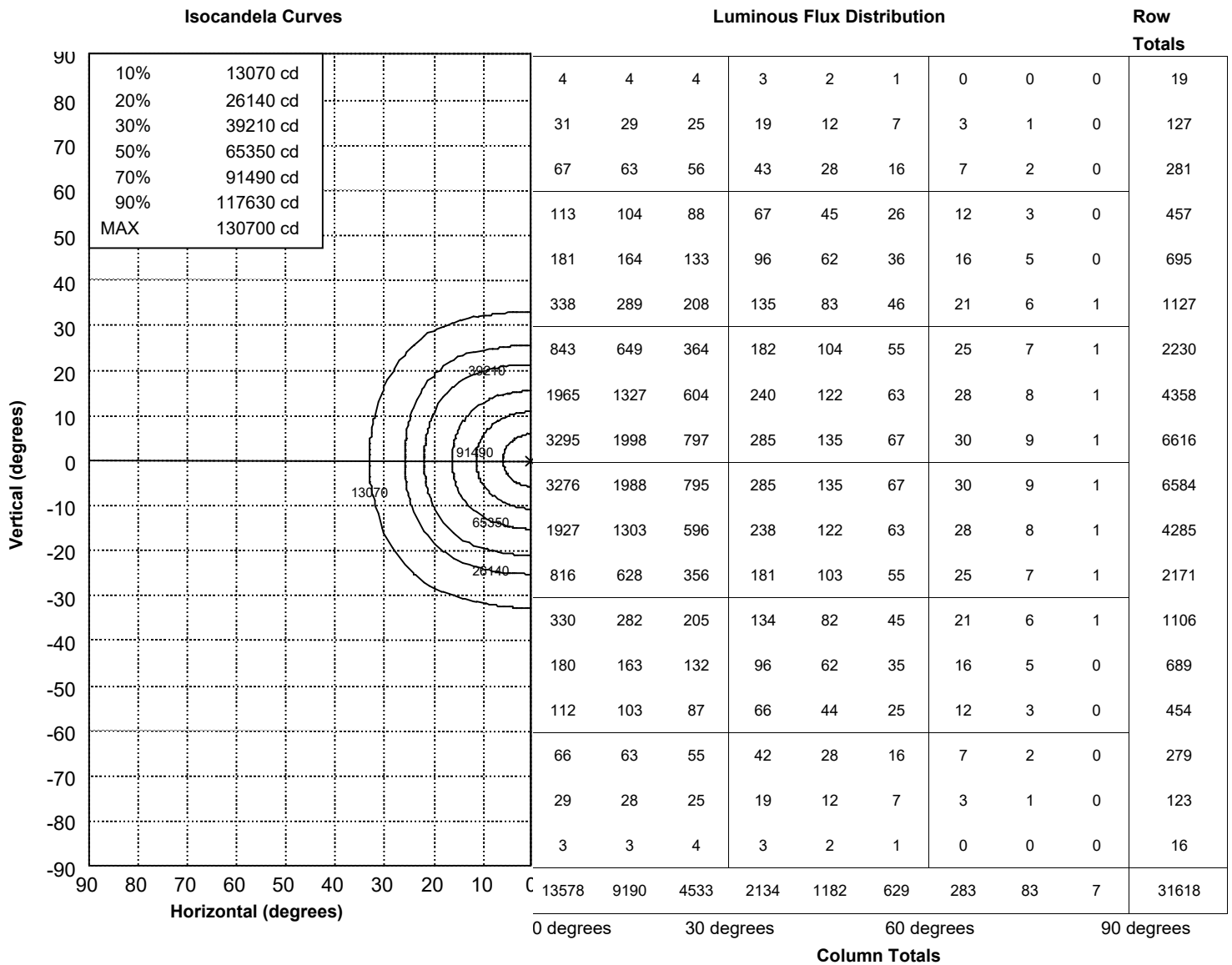
\_\_\_\_\_  
Authorized Signatory

Date of test                    2-May-2024  
Date of report                 2-May-2024

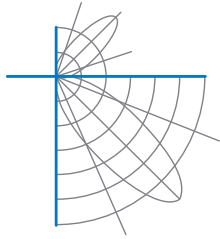


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Note: Left and right sides of photometric data have been averaged.  
Lumen values are tabulated as absolute lumen values.  
Candela values are tabulated as absolute candela values.



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Vertical Angle (degrees)	Left Side Horizontal Angle (degrees)									Lumen Totals
	-90	-60	-30			0			90	
-90	7.3 0.0	18.6 0.1	22.4 0.3	18.6 0.8	9.1 1.7	74.3 3.0	83.9 3.6	47.2 3.3	15.6 3.1	16
	21.2 0.1	54.9 0.6	193.8 2.7	383.1 6.8	537.6 12.3	759.2 19.1	869.1 24.6	932.5 27.8	953.2 29.3	123
	34.6 0.1	196.1 1.8	532.1 7.0	868.7 15.5	1295.4 28.0	1706.9 42.5	2007.5 55.2	2131.8 63.0	2168.2 66.4	279
-60	47.1 0.2	397.4 3.3	858.3 11.5	1446.8 25.5	2052.5 44.4	2647.5 66.3	3136.1 87.3	3482.8 103.3	3671.2 112.2	454
	58.2 0.4	580.3 4.8	1248.3 16.4	2005.7 35.5	2822.4 61.9	3799.6 95.6	4738.8 132.1	5456.8 162.8	5871.1 180.0	689
	67.8 0.5	740.8 6.2	1597.2 20.9	2586.2 45.5	3775.1 82.1	5358.2 134.2	7226.0 204.6	9127.9 282.1	10307.4 330.2	1106
-30	75.2 0.6	872.4 7.4	1887.5 24.9	3101.8 55.1	4736.4 103.0	7036.5 180.7	12470.0 356.2	20657.4 627.7	25702.4 815.7	2171
	80.3 0.7	965.2 8.3	2101.8 27.9	3501.2 62.6	5561.7 121.9	9215.6 238.3	21052.3 595.5	44193.5 1302.5	63377.2 1927.1	4285
	82.8 0.7	1011.5 8.7	2221.7 29.5	3706.6 66.8	6101.4 134.5	10961.8 284.6	27909.2 794.7	68361.5 1988.2	112370.8 3276.0	6584
0	82.8 0.7	1012.4 8.7	2223.9 29.6	3708.2 66.8	6112.2 134.7	10979.6 285.1	27986.9 797.4	68687.2 1998.0	113052.1 3294.8	6616
	80.4 0.7	967.6 8.3	2106.6 27.9	3509.0 62.8	5583.7 122.4	9264.3 239.7	21345.3 603.7	45103.3 1327.4	64713.0 1965.1	4358
	75.4 0.6	875.6 7.5	1892.8 25.0	3111.7 55.3	4760.7 103.5	7078.7 182.0	12738.3 363.9	21446.5 649.1	26654.3 843.0	2230
30	68.0 0.5	743.9 6.3	1602.5 21.0	2597.2 45.7	3795.0 82.5	5391.6 135.1	7340.4 208.1	9333.4 289.2	10533.7 338.3	1127
	58.6 0.4	582.9 4.9	1254.1 16.4	2014.5 35.6	2835.9 62.2	3820.8 96.2	4777.3 133.2	5503.9 164.3	5919.7 181.5	695
	47.6 0.2	399.5 3.3	863.4 11.6	1452.9 25.6	2060.0 44.5	2660.1 66.7	3158.2 87.9	3509.0 104.1	3695.5 113.0	457
60	35.2 0.1	197.8 1.8	536.2 7.0	872.8 15.6	1300.8 28.1	1713.9 42.7	2018.8 55.5	2147.7 63.4	2181.6 66.8	281
	21.9 0.1	56.2 0.6	196.2 2.7	386.0 6.8	542.0 12.4	764.9 19.3	904.2 25.4	976.6 29.2	990.5 30.7	127
	8.1 0.0	19.7 0.2	24.2 0.4	20.3 0.9	9.6 1.7	75.8 3.0	91.9 4.0	69.3 4.3	60.5 4.4	19
90	7	83	283	629	1182	2134	4533	9190	13578	31618

**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	15.6 3.1	47.2 3.3	83.9 3.6	74.3 3.0	9.1 1.7	18.6 0.8	22.4 0.3	18.6 0.1	7.3 0.0	16
	953.2 29.3	932.5 27.8	869.1 24.6	759.2 19.1	537.6 12.3	383.1 6.8	193.8 2.7	54.9 0.6	21.2 0.1	123
	2168.2 66.4	2131.8 63.0	2007.5 55.2	1706.9 42.5	1295.4 28.0	868.7 15.5	532.1 7.0	196.1 1.8	34.6 0.1	279
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	5871.1 180.0	5456.8 162.8	4738.8 132.1	3799.6 95.6	2822.4 61.9	2005.7 35.5	1248.3 16.4	580.3 4.8	58.2 0.4	689
	10307.4 330.2	9127.9 282.1	7226.0 204.6	5358.2 134.2	3775.1 82.1	2586.2 45.5	1597.2 20.9	740.8 6.2	67.8 0.5	1106
-30	25702.4 815.7	20657.4 627.7	12470.0 356.2	7036.5 180.7	4736.4 103.0	3101.8 55.1	1887.5 24.9	872.4 7.4	75.2 0.6	2171
	63377.2 1927.1	44193.5 1302.5	21052.3 595.5	9215.6 238.3	5561.7 121.9	3501.2 62.6	2101.8 27.9	965.2 8.3	80.3 0.7	4285
	112370.8 3276.0	68361.5 1988.2	27909.2 794.7	10961.8 284.6	6101.4 134.5	3706.6 66.8	2221.7 29.5	1011.5 8.7	82.8 0.7	6584
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30	10533.7 338.3	9333.4 289.2	7340.4 208.1	5391.6 135.1	3795.0 82.5	2597.2 45.7	1602.5 21.0	743.9 6.3	68.0 0.5	1127
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	990.5 30.7	976.6 29.2	904.2 25.4	764.9 19.3	542.0 12.4	386.0 6.8	196.2 2.7	56.2 0.6	21.9 0.1	127
	60.5 4.4	69.3 4.3	91.9 4.0	75.8 3.0	9.6 1.7	20.3 0.9	24.2 0.4	19.7 0.2	8.1 0.0	19
90	13578	9190	4533	2134	1182	629	283	83	7	31618

**Lumen Totals**

Legend:

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**Candela trace through origin.**

Vertical Trace			
Angle	Intensity (cd)	Angle	Intensity (cd)
90.0	0.00	0.0	130700.00
87.0	3.16	-3.0	126700.00
84.0	125.19	-6.0	116100.00
81.0	368.15	-9.0	100700.00
78.0	666.68	-12.0	83204.52
75.0	991.91	-15.0	66198.05
72.0	1356.35	-18.0	51234.45
69.0	1714.81	-21.0	38896.07
66.0	2068.91	-24.0	29134.45
63.0	2450.24	-27.0	21566.02
60.0	2872.98	-30.0	16090.60
57.0	3337.12	-33.0	12339.90
54.0	3892.78	-36.0	9680.90
51.0	4504.55	-39.0	7882.09
48.0	5172.98	-42.0	6707.03
45.0	5905.14	-45.0	5868.64
42.0	6758.24	-48.0	5139.74
39.0	7979.60	-51.0	4480.58
36.0	9853.59	-54.0	3869.90
33.0	12653.14	-57.0	3318.05
30.0	16611.40	-60.0	2853.37
27.0	22331.42	-63.0	2436.62
24.0	30131.91	-66.0	2054.74
21.0	40133.78	-69.0	1708.82
18.0	52538.63	-72.0	1334.02
15.0	67591.56	-75.0	953.23
12.0	84710.24	-78.0	625.28
9.0	101900.00	-81.0	278.81
6.0	117000.00	-84.0	36.39
3.0	127200.00	-87.0	2.07
0.0	130700.00	-90.0	1.41

Horizontal Trace			
Angle	Intensity (cd)	Angle	Intensity (cd)
90.0	1.31	0.0	130700.00
87.0	50.05	-3.0	127250.00
84.0	176.43	-6.0	117625.00
81.0	456.51	-9.0	104450.00
78.0	736.59	-12.0	88701.22
75.0	1016.67	-15.0	72269.58
72.0	1382.59	-18.0	56904.75
69.0	1748.51	-21.0	43370.69
66.0	2114.44	-24.0	31991.25
63.0	2535.55	-27.0	23471.20
60.0	2984.27	-30.0	17301.39
57.0	3432.98	-33.0	12895.02
54.0	3954.36	-36.0	10450.46
51.0	4621.09	-39.0	8540.49
48.0	5287.82	-42.0	7165.11
45.0	6167.41	-45.0	6167.41
42.0	7165.11	-48.0	5287.82
39.0	8540.49	-51.0	4621.09
36.0	10450.46	-54.0	3954.36
33.0	12895.02	-57.0	3432.98
30.0	17301.39	-60.0	2984.27
27.0	23471.20	-63.0	2535.55
24.0	31991.25	-66.0	2114.44
21.0	43370.69	-69.0	1748.51
18.0	56904.75	-72.0	1382.59
15.0	72269.58	-75.0	1016.67
12.0	88701.22	-78.0	736.59
9.0	104450.00	-81.0	456.51
6.0	117625.00	-84.0	176.43
3.0	127250.00	-87.0	50.05
0.0	130700.00	-90.0	1.31

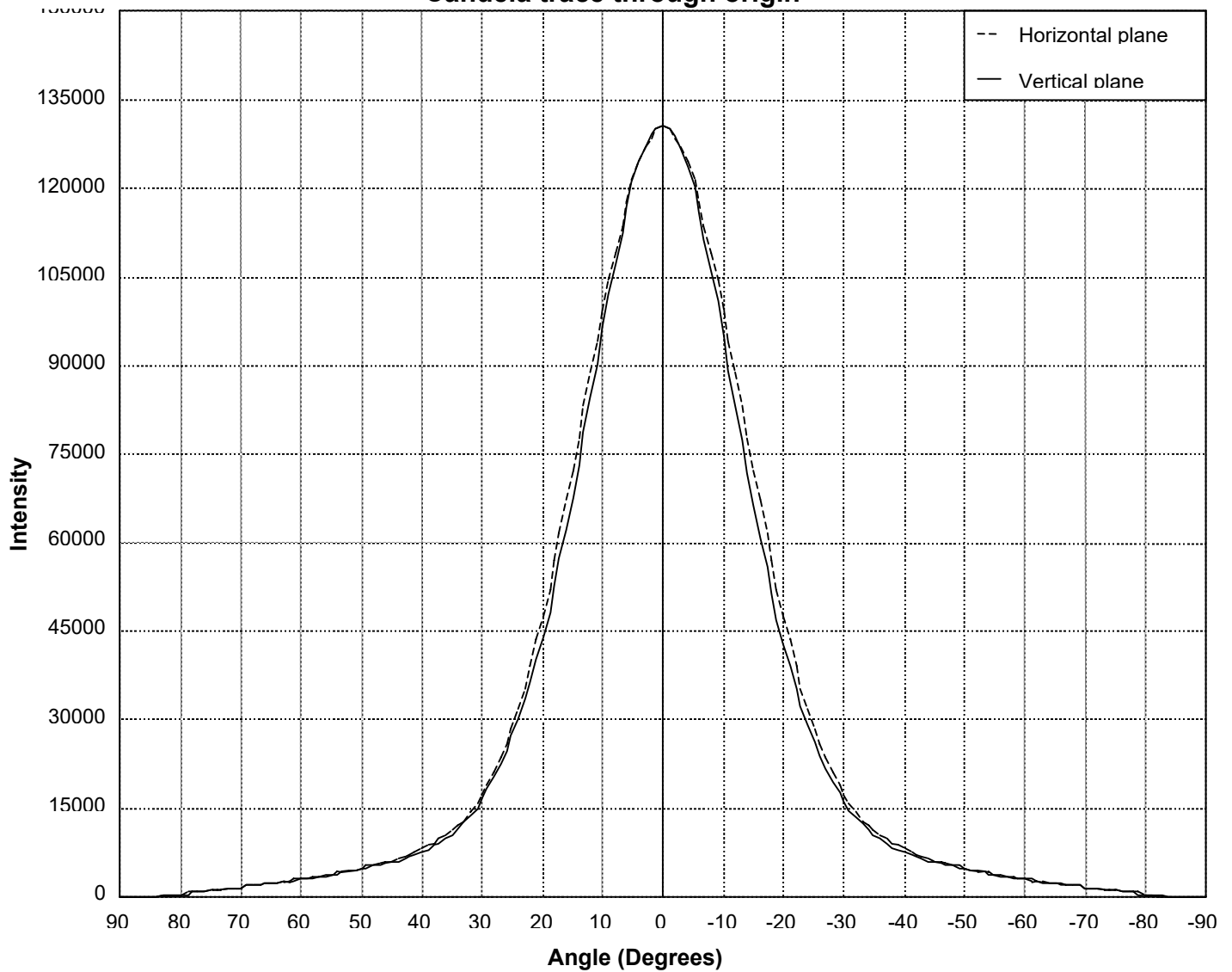
Note: Luminaire orientation as tested.  
The left and right sides of photometric data have been averaged.



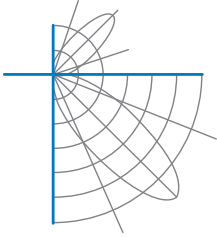
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**Candela trace through origin**



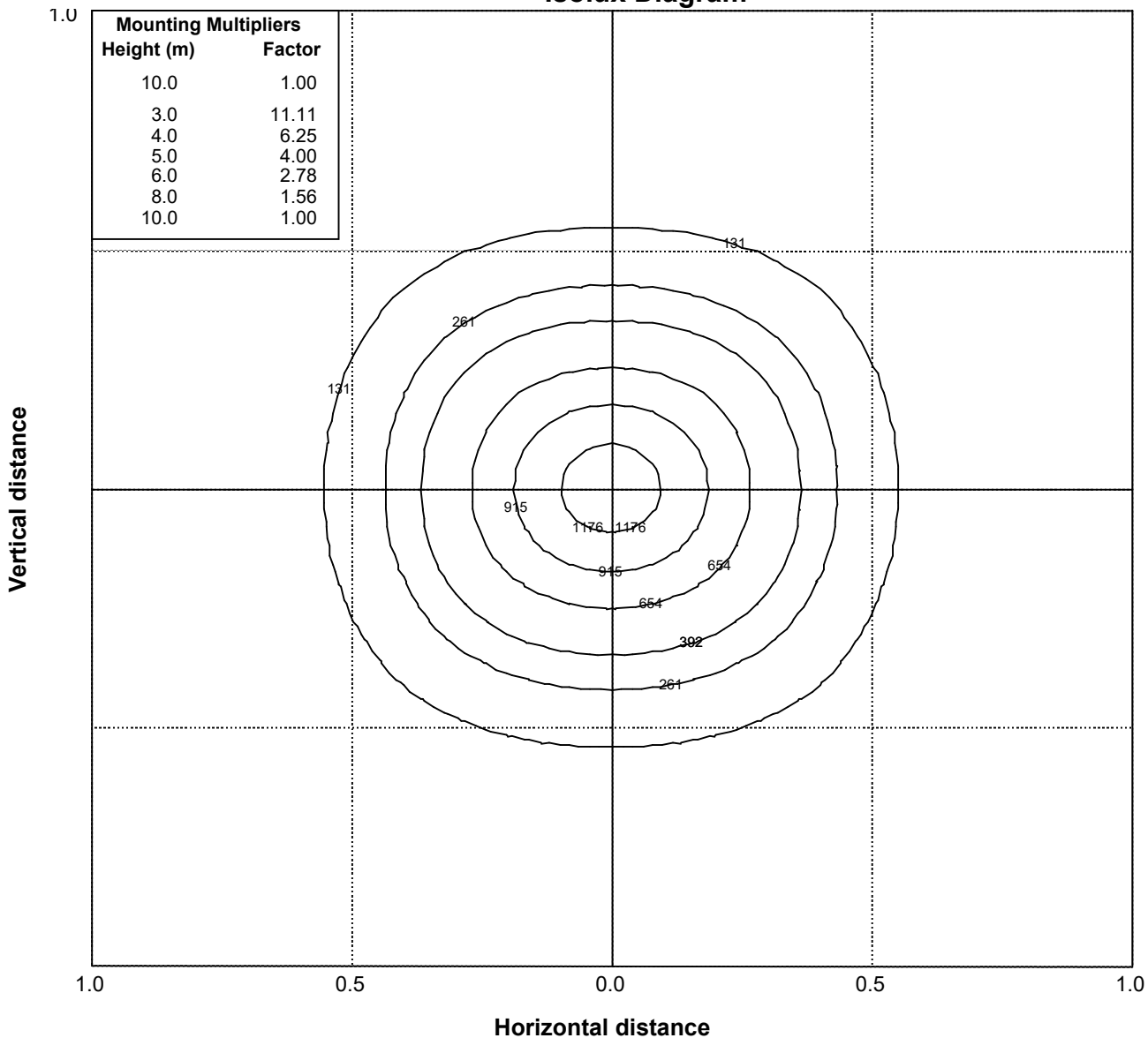
Note: The intensity units are expressed as candelas.  
The left and right sides of photometric data have been averaged.  
Both the vertical and the horizontal trace pass through the nadir.



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**Isolux Diagram**



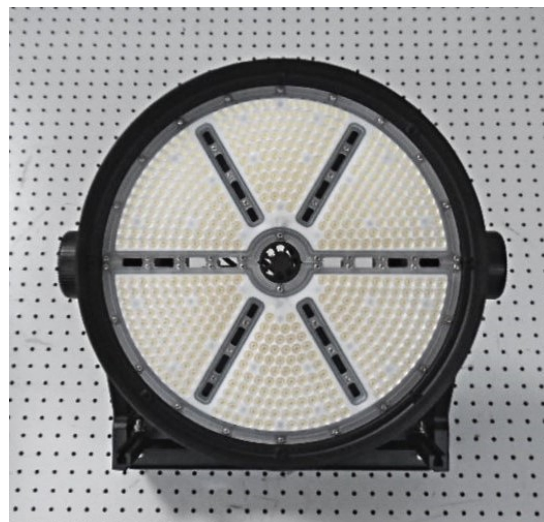
Note: The isolux levels are based on a mounting height of H = 10.0 metres. Grid values show multiples of mounting height.  
The isolux contours are set to 10%, 20%, 30%, 50%, 70%, 90% of the maximum.  
The isolux contour units are expressed as lux. The left and right sides of photometric data have been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





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**Test Distance** 9.5 m  
**Test Temperature** 25.3 °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.