



# Report of Test

## LLIA002378-005

Catalog Number: SP-750PS-50K - 500W Setting  
Pole mounted, cast aluminum housing, clear plastic enclosure.  
960 white LEDs with plastic optics in front of each.  
One uPowerTek BLD-700-C420-ENU LED driver  
120.0Vac, 60.00Hz, 4.277A, 508.5W, 0.990PF, 11.4%THD(i)



### Performance Summary

Total Light Output	84137	lm	Illuminance at 10m	1718.0 lux
Luminaire Power	508.2	W	Beam Distance	829.0 Meters (to 0.25 lux)
Luminous Efficacy	165.6	lm/W	Maximum Intensity	171800 cd
Beam Spread (50%)	33.9° V x 33.9° H			
Field Spread (10%)	65.7° V x 65.8° H			
NEMA Type	5H x 5V			

**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 171800.0 cd  
(Luminaire orientation as tested.) -0.5° vertical  
0.0° horizontal

Beam Spread	At 10% of max intensity	65.7° V	x	65.8° H
	At 50% of max intensity	33.9° V	x	33.9° H
	At 90% of max intensity	14.1° V	x	14.1° H

Beam Flux	Total	84137 lm
	To 10% of max intensity	63497 lm
	To 50% of max intensity	35241 lm
	To 90% of max intensity	7701 lm

Total Light Output 84136.6 lm

Signed:

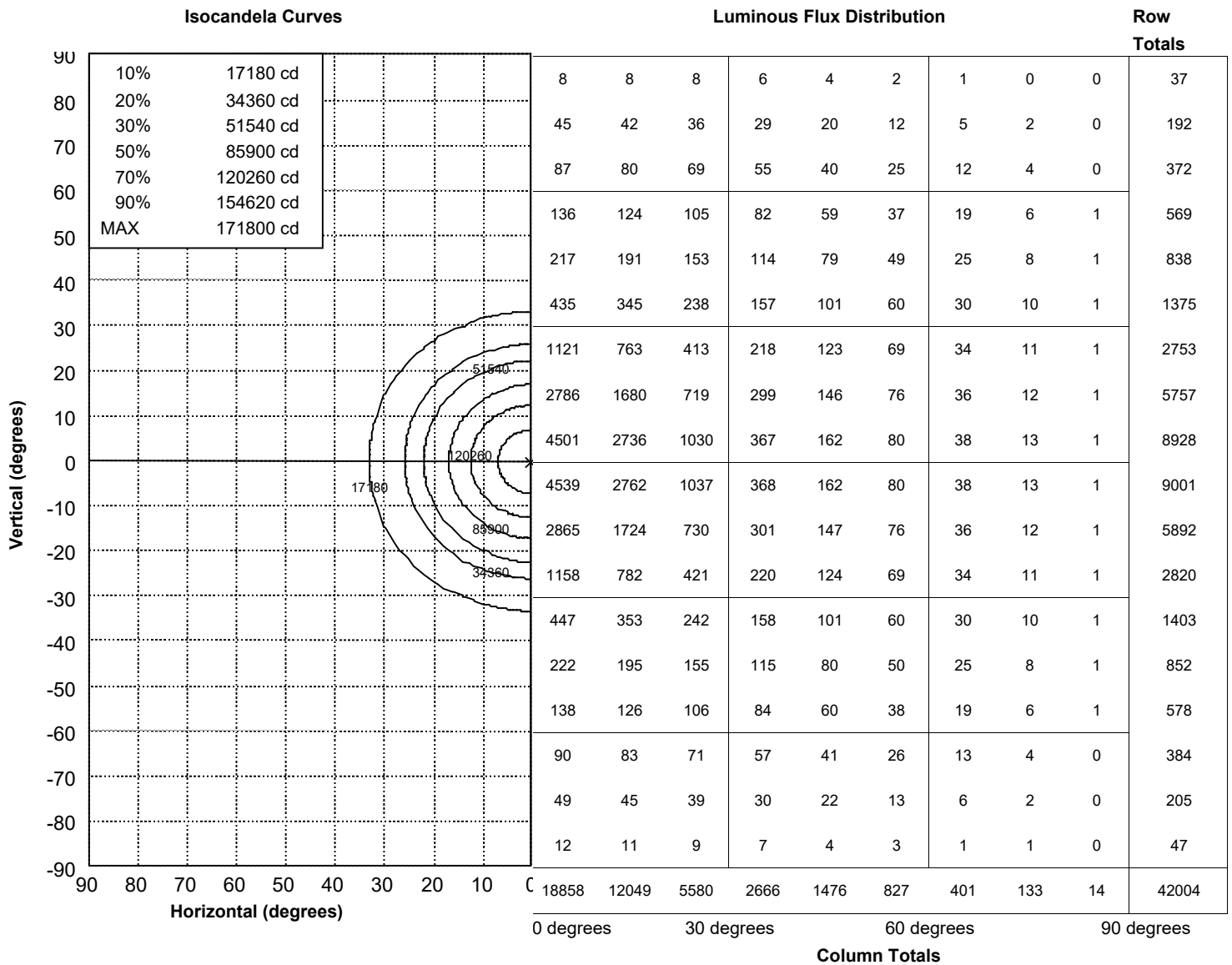
\_\_\_\_\_  
Authorized Signatory

Date of test 22-May-2024  
Date of report 23-May-2024

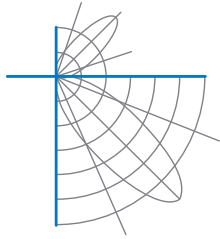


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Note: Left and right sides of photometric data have been averaged.  
Lumen values are tabulated as absolute lumen values.  
Candela values are tabulated as absolute candela values.



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Vertical Angle (degrees)	Left Side Horizontal Angle (degrees)									Lumen Totals
	-90	-60	-30	0	30	60	90	120	150	
-90	23.6 0.1	63.9 0.5	94.9 1.3	115.4 2.6	113.9 4.3	193.3 6.7	260.3 9.2	278.4 10.7	290.1 11.6	47
	67.3 0.2	188.5 1.7	432.7 5.8	741.6 13.0	997.7 21.6	1219.0 30.4	1402.3 38.6	1538.5 45.0	1622.8 49.0	205
	109.0 0.4	427.1 3.7	961.9 12.6	1469.6 25.7	1908.8 41.1	2263.5 56.5	2558.9 70.7	2803.7 82.6	2982.0 90.3	384
-60	147.5 0.6	723.6 6.0	1459.2 19.1	2177.9 38.1	2805.1 60.4	3340.7 83.6	3824.5 106.2	4239.2 125.8	4519.8 138.5	578
	181.5 0.8	985.7 8.2	1910.2 24.9	2834.0 49.7	3700.4 80.2	4578.6 115.2	5540.0 155.1	6493.4 195.1	7140.2 222.4	852
	210.1 1.1	1204.8 10.0	2282.9 29.8	3425.6 60.1	4676.3 101.3	6254.3 158.1	8530.3 242.0	11491.6 353.5	13969.0 447.2	1403
-30	232.2 1.2	1374.0 11.4	2572.0 33.7	3916.4 69.3	5629.0 123.8	8625.4 220.5	14617.6 420.6	25313.8 781.7	36098.8 1157.8	2820
	247.1 1.3	1488.3 12.3	2769.2 36.5	4277.1 76.4	6611.4 146.5	11702.9 301.1	25561.6 729.7	57444.4 1724.0	96422.9 2864.6	5892
	254.3 1.4	1544.9 12.8	2869.2 37.9	4475.4 80.5	7246.0 162.0	14231.6 368.2	36291.1 1037.0	95489.6 2761.8	155179.2 4539.4	9001
0	253.8 1.4	1543.0 12.8	2867.1 37.9	4474.0 80.4	7237.2 161.8	14189.3 367.1	36076.1 1030.3	94506.2 2735.7	153878.7 4500.9	8928
	245.6 1.3	1482.6 12.3	2762.3 36.4	4272.1 76.3	6587.0 146.0	11605.4 298.6	25228.1 719.4	55777.4 1680.0	93550.8 2786.4	5757
	229.9 1.2	1365.3 11.3	2559.1 33.6	3901.4 69.0	5600.1 123.1	8534.0 218.1	14367.0 413.3	24757.4 762.7	35072.4 1121.0	2753
30	207.3 1.0	1193.7 9.9	2263.9 29.6	3400.5 59.7	4647.6 100.7	6195.5 156.6	8382.9 237.9	11204.9 344.9	13554.8 434.7	1375
	178.6 0.8	972.6 8.1	1885.9 24.6	2796.9 49.1	3671.6 79.5	4545.8 114.2	5476.0 153.1	6375.2 191.4	6975.2 217.2	838
	144.8 0.6	709.2 5.9	1433.6 18.7	2133.5 37.4	2760.3 59.5	3292.7 82.4	3774.7 104.7	4178.7 123.9	4448.9 136.1	569
60	107.0 0.4	411.7 3.6	932.9 12.2	1422.5 24.9	1855.6 39.9	2198.9 54.9	2483.3 68.6	2716.1 80.1	2884.1 87.5	372
	66.2 0.2	176.3 1.6	403.0 5.4	699.2 12.2	946.6 20.4	1146.4 28.6	1313.4 36.1	1432.1 41.9	1500.9 45.5	192
	23.6 0.1	61.2 0.5	81.6 1.1	88.0 2.2	65.7 3.6	148.8 5.7	211.0 7.8	184.5 8.5	105.2 8.0	37
90	14	133	401	827	1476	2666	5580	12049	18858	42004

Lumen Totals

Legend:

candelas
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	290.1 11.6	278.4 10.7	260.3 9.2	193.3 6.7	113.9 4.3	115.4 2.6	94.9 1.3	63.9 0.5	23.6 0.1	47
	1622.8 49.0	1538.5 45.0	1402.3 38.6	1219.0 30.4	997.7 21.6	741.6 13.0	432.7 5.8	188.5 1.7	67.3 0.2	205
	2982.0 90.3	2803.7 82.6	2558.9 70.7	2263.5 56.5	1908.8 41.1	1469.6 25.7	961.9 12.6	427.1 3.7	109.0 0.4	384
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	13969.0 447.2	11491.6 353.5	8530.3 242.0	6254.3 158.1	4676.3 101.3	3425.6 60.1	2282.9 29.8	1204.8 10.0	210.1 1.1	1403
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	6975.2 217.2	6375.2 191.4	5476.0 153.1	4545.8 114.2	3671.6 79.5	2796.9 49.1	1885.9 24.6	972.6 8.1	178.6 0.8	838
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	1500.9 45.5	1432.1 41.9	1313.4 36.1	1146.4 28.6	946.6 20.4	699.2 12.2	403.0 5.4	176.3 1.6	66.2 0.2	192
	105.2 8.0	184.5 8.5	211.0 7.8	148.8 5.7	65.7 3.6	88.0 2.2	81.6 1.1	61.2 0.5	23.6 0.1	37
90	18858	12049	5580	2666	1476	827	401	133	14	42004

**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	1.96	0.0	171800.00
87.0	3.05	-3.0	169100.00
84.0	232.46	-6.0	160200.00
81.0	693.45	-9.0	145600.00
78.0	1108.67	-12.0	126000.00
75.0	1511.35	-15.0	103100.00
72.0	1928.20	-18.0	79354.95
69.0	2346.69	-21.0	58317.23
66.0	2772.26	-24.0	42259.94
63.0	3199.47	-27.0	30889.94
60.0	3654.46	-30.0	22840.60
57.0	4139.98	-33.0	17155.59
54.0	4682.16	-36.0	13205.57
51.0	5319.70	-39.0	10489.76
48.0	6088.56	-42.0	8606.57
45.0	7066.66	-45.0	7237.77
42.0	8372.80	-48.0	6208.98
39.0	10180.26	-51.0	5404.70
36.0	12800.71	-54.0	4758.44
33.0	16688.06	-57.0	4208.09
30.0	22276.07	-60.0	3726.39
27.0	30090.01	-63.0	3287.74
24.0	40945.09	-66.0	2877.98
21.0	56121.81	-69.0	2457.85
18.0	76525.79	-72.0	2046.99
15.0	100100.00	-75.0	1639.40
12.0	123300.00	-78.0	1224.19
9.0	143200.00	-81.0	811.69
6.0	158500.00	-84.0	421.54
3.0	168100.00	-87.0	76.61
0.0	171800.00	-90.0	3.17

Horizontal Trace			
Angle	Intensity (cd)	Angle	Intensity (cd)
90.0	1.80	0.0	171800.00
87.0	153.65	-3.0	168550.00
84.0	384.61	-6.0	159000.00
81.0	773.40	-9.0	144400.00
78.0	1162.19	-12.0	124350.00
75.0	1550.98	-15.0	101360.89
72.0	1949.84	-18.0	78033.64
69.0	2348.71	-21.0	57751.98
66.0	2747.58	-24.0	42041.80
63.0	3203.73	-27.0	30926.37
60.0	3688.53	-30.0	22902.35
57.0	4173.33	-33.0	16957.38
54.0	4742.43	-36.0	13414.04
51.0	5480.13	-39.0	10644.87
48.0	6217.84	-42.0	8649.86
45.0	7329.07	-45.0	7329.07
42.0	8649.86	-48.0	6217.84
39.0	10644.87	-51.0	5480.13
36.0	13414.04	-54.0	4742.43
33.0	16957.38	-57.0	4173.33
30.0	22902.35	-60.0	3688.53
27.0	30926.37	-63.0	3203.73
24.0	42041.80	-66.0	2747.58
21.0	57751.98	-69.0	2348.71
18.0	78033.64	-72.0	1949.84
15.0	101360.89	-75.0	1550.98
12.0	124350.00	-78.0	1162.19
9.0	144400.00	-81.0	773.40
6.0	159000.00	-84.0	384.61
3.0	168550.00	-87.0	153.65
0.0	171800.00	-90.0	1.80

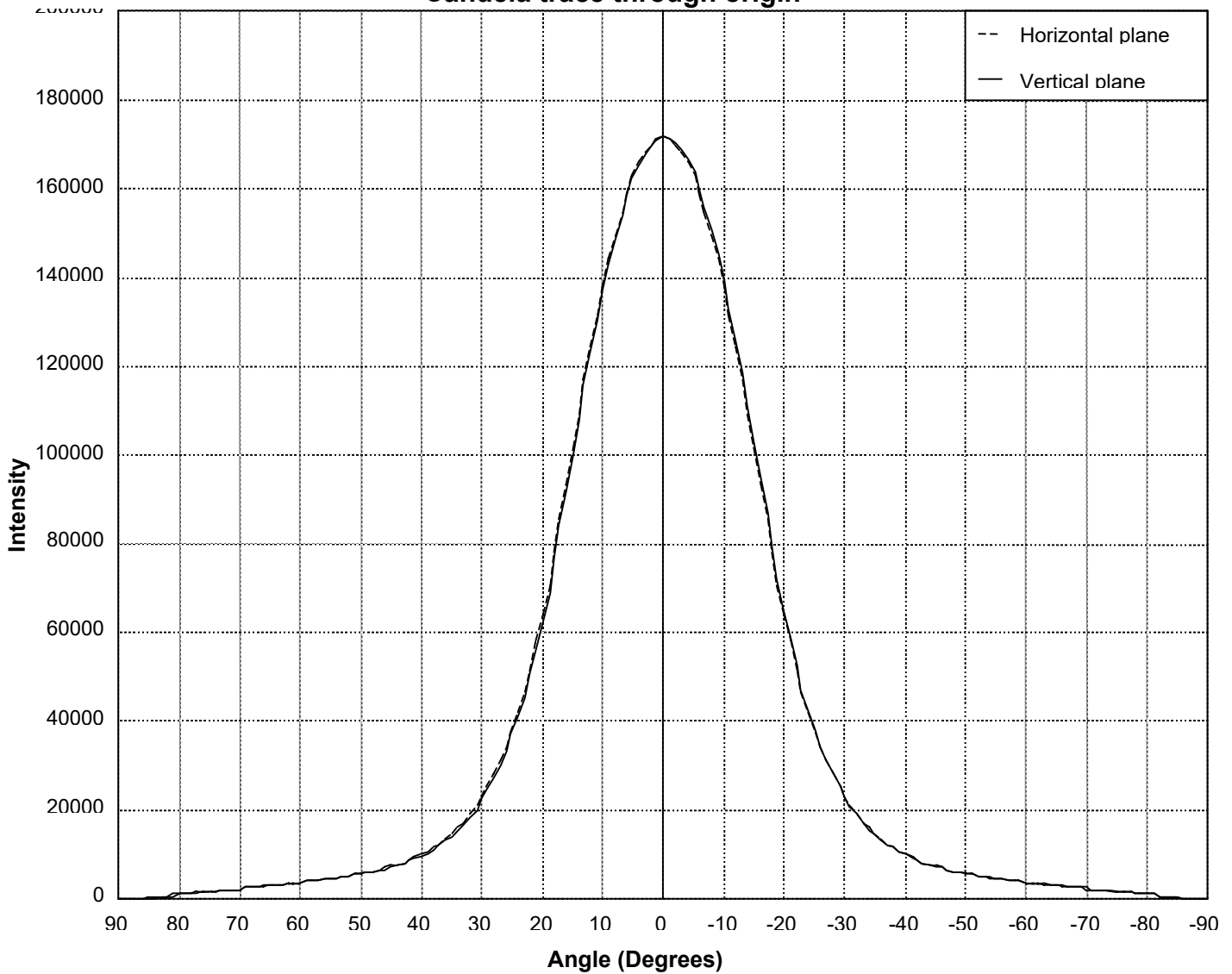
Note: Luminaire orientation as tested.  
The left and right sides of photometric data have been averaged.



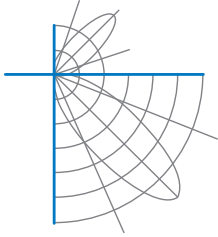
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**Candela trace through origin**



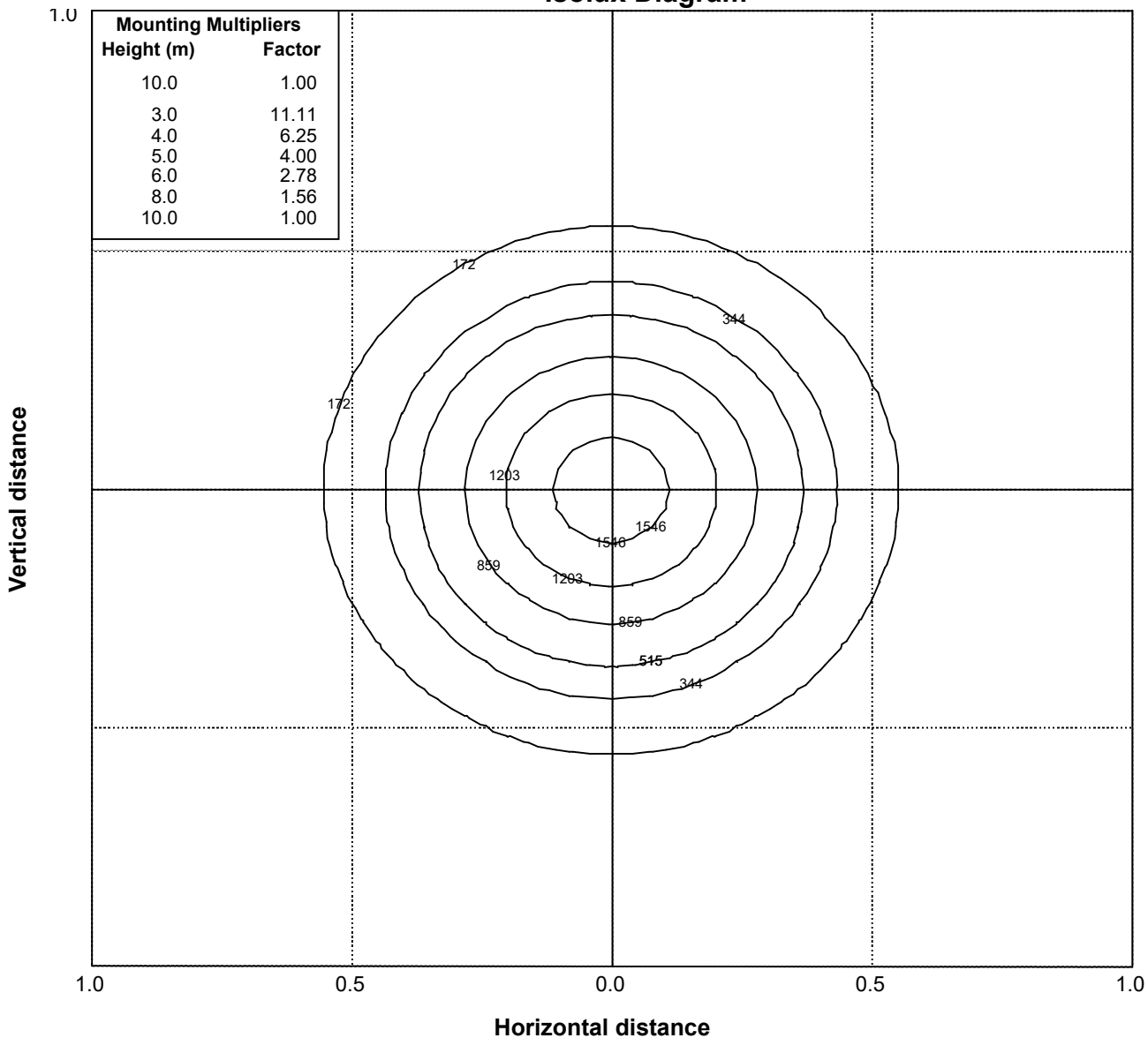
Note: The intensity units are expressed as candelas.  
The left and right sides of photometric data have been averaged.  
Both the vertical and the horizontal trace pass through the nadir.



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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** 25.1 °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.