



# Report of Test

## LLIA002378-001

Catalog Number: SP-500PS-50K - 300W 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, 2.600A, 310.0W, 0.994PF, 8.6%THD(i)



### Performance Summary

Total Light Output	50414	lm	Illuminance at 10m	1042.0 lux
Luminaire Power	309.9	W	Beam Distance	645.6 Meters (to 0.25 lux)
Luminous Efficacy	162.7	lm/W		
Beam Spread (50%)	30.7° V x 32.7° H		Maximum Intensity	104200 cd
Field Spread (10%)	65.0° V x 65.7° 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 104200.0 cd  
(Luminaire orientation as tested.) 0.0° vertical  
0.0° horizontal

Beam Spread	At 10% of max intensity	65.0° V	x	65.7° H
	At 50% of max intensity	30.7° V	x	32.7° H
	At 90% of max intensity	11.6° V	x	12.1° H

Beam Flux	Total	50414 lm
	To 10% of max intensity	37953 lm
	To 50% of max intensity	18499 lm
	To 90% of max intensity	3249 lm

Total Light Output 50413.7 lm

Signed:

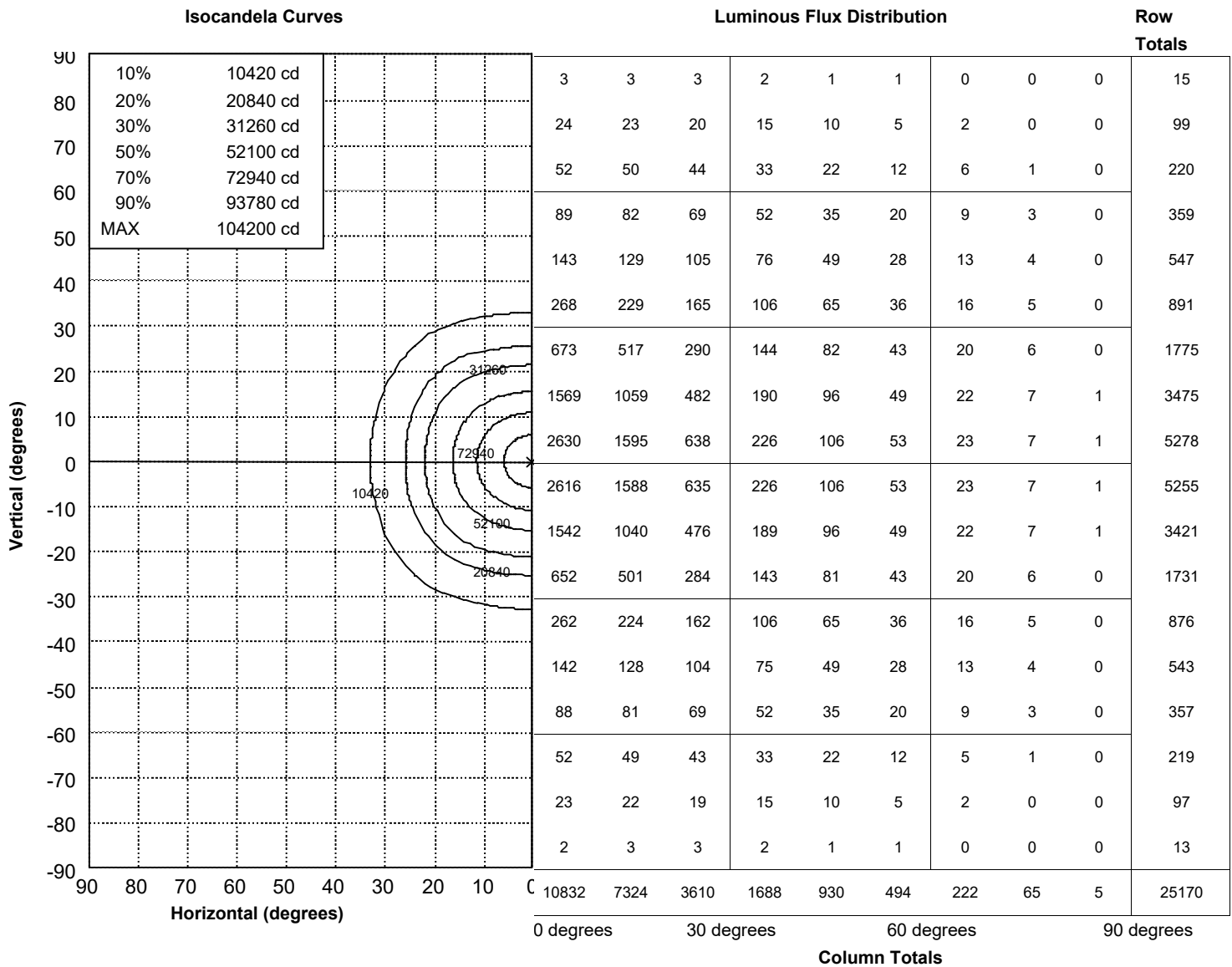
\_\_\_\_\_  
Authorized Signatory

Date of test 30-Apr-2024  
Date of report 2-May-2024

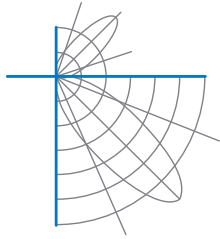


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Note: Left and right sides of photometric data have been averaged.  
Lumen values are tabulated as absolute lumen values.  
Candela values are tabulated as absolute candela values.



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Vertical Angle (degrees)	Left Side Horizontal Angle (degrees)									Lumen Totals
	-90	-60	-30	0	30	60	90	120	150	
-90	5.8 0.0	14.6 0.1	17.5 0.3	14.6 0.7	7.3 1.3	58.1 2.3	65.7 2.9	36.9 2.6	12.2 2.4	13
	16.6 0.1	43.0 0.4	152.0 2.1	300.3 5.3	421.4 9.6	594.9 15.0	681.5 19.3	731.0 21.8	745.1 23.0	97
	27.1 0.1	153.8 1.4	417.1 5.5	681.1 12.2	1015.8 21.9	1338.8 33.3	1574.4 43.3	1673.1 49.4	1699.6 52.1	219
-60	36.9 0.2	311.6 2.6	672.9 9.1	1135.5 20.0	1612.3 34.9	2080.6 52.1	2466.4 68.7	2739.3 81.2	2890.8 88.3	357
	45.7 0.3	455.1 3.8	979.6 12.8	1575.7 27.9	2220.5 48.7	2991.2 75.3	3730.5 104.0	4292.2 128.2	4623.8 141.8	543
	53.1 0.4	581.0 4.9	1253.9 16.4	2033.5 35.7	2972.5 64.6	4223.9 105.8	5709.4 161.9	7228.5 223.7	8180.0 262.3	876
-30	58.9 0.5	684.2 5.8	1482.3 19.6	2440.0 43.3	3729.3 81.1	5563.1 143.0	9934.7 283.7	16503.6 501.2	20581.8 652.3	1731
	63.0 0.6	757.0 6.5	1650.5 21.9	2754.8 49.3	4379.5 96.1	7306.6 189.1	16823.4 475.8	35295.7 1040.3	50740.4 1541.6	3421
	65.0 0.6	793.2 6.9	1744.4 23.2	2916.2 52.5	4805.7 106.0	8701.1 226.1	22324.7 635.4	54593.3 1587.8	89744.2 2616.1	5255
0	65.0 0.6	793.9 6.9	1745.8 23.2	2917.3 52.6	4814.0 106.2	8715.3 226.5	22387.0 637.5	54826.1 1595.0	90187.5 2629.5	5278
	63.0 0.6	758.7 6.5	1653.8 21.9	2760.7 49.4	4396.6 96.4	7344.3 190.1	17055.9 482.1	35973.4 1058.9	51689.5 1569.2	3475
	59.1 0.5	686.5 5.9	1486.2 19.6	2447.8 43.5	3747.9 81.5	5594.8 144.0	10149.5 289.8	17099.0 517.5	21278.3 672.9	1775
30	53.3 0.4	583.3 4.9	1257.9 16.5	2042.2 35.9	2987.0 64.9	4249.2 106.5	5801.7 164.6	7387.4 229.2	8346.4 268.4	891
	45.9 0.3	457.0 3.8	983.8 12.9	1582.1 28.0	2231.0 48.9	3006.4 75.7	3758.9 104.9	4326.3 129.3	4658.1 143.0	547
	37.3 0.2	313.2 2.6	676.8 9.1	1139.9 20.1	1617.8 35.0	2089.7 52.4	2482.4 69.1	2758.8 81.8	2906.8 88.9	359
60	27.6 0.1	155.0 1.4	420.2 5.5	684.2 12.2	1019.8 22.0	1343.7 33.5	1582.3 43.5	1684.2 49.8	1707.9 52.4	220
	17.2 0.1	44.0 0.5	153.8 2.1	302.5 5.3	424.4 9.7	599.2 15.1	708.1 19.9	764.4 22.9	772.8 24.0	99
	6.4 0.0	15.4 0.1	18.9 0.3	15.9 0.7	7.5 1.3	59.3 2.4	71.7 3.2	54.0 3.3	47.0 3.5	15
90	<p style="text-align: center;">5                  65                  222                  494                  930                  1688                  3610                  7324                  10832</p> <p style="text-align: center;"><b>Lumen Totals</b></p>									25170

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.

Legend:

<b>candelas</b>
lumens



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Vertical Angle (degrees)	Right Side Horizontal Angle (degrees)									Lumen Totals
	0	30	60	90	120	150	180	210	240	
-90	12.2 2.4	36.9 2.6	65.7 2.9	58.1 2.3	7.3 1.3	14.6 0.7	17.5 0.3	14.6 0.1	5.8 0.0	13
	745.1 23.0	731.0 21.8	681.5 19.3	594.9 15.0	421.4 9.6	300.3 5.3	152.0 2.1	43.0 0.4	16.6 0.1	97
	1699.6 52.1	1673.1 49.4	1574.4 43.3	1338.8 33.3	1015.8 21.9	681.1 12.2	417.1 5.5	153.8 1.4	27.1 0.1	219
-60	2890.8 88.3	2739.3 81.2	2466.4 68.7	2080.6 52.1	1612.3 34.9	1135.5 20.0	672.9 9.1	311.6 2.6	36.9 0.2	357
	4623.8 141.8	4292.2 128.2	3730.5 104.0	2991.2 75.3	2220.5 48.7	1575.7 27.9	979.6 12.8	455.1 3.8	45.7 0.3	543
	8180.0 262.3	7228.5 223.7	5709.4 161.9	4223.9 105.8	2972.5 64.6	2033.5 35.7	1253.9 16.4	581.0 4.9	53.1 0.4	876
-30	20581.8 652.3	16503.6 501.2	9934.7 283.7	5563.1 143.0	3729.3 81.1	2440.0 43.3	1482.3 19.6	684.2 5.8	58.9 0.5	1731
	50740.4 1541.6	35295.7 1040.3	16823.4 475.8	7306.6 189.1	4379.5 96.1	2754.8 49.3	1650.5 21.9	757.0 6.5	63.0 0.6	3421
	89744.2 2616.1	54593.3 1587.8	22324.7 635.4	8701.1 226.1	4805.7 106.0	2916.2 52.5	1744.4 23.2	793.2 6.9	65.0 0.6	5255
0	90187.5 2629.5	54826.1 1595.0	22387.0 637.5	8715.3 226.5	4814.0 106.2	2917.3 52.6	1745.8 23.2	793.9 6.9	65.0 0.6	5278
	51689.5 1569.2	35973.4 1058.9	17055.9 482.1	7344.3 190.1	4396.6 96.4	2760.7 49.4	1653.8 21.9	758.7 6.5	63.0 0.6	3475
	21278.3 672.9	17099.0 517.5	10149.5 289.8	5594.8 144.0	3747.9 81.5	2447.8 43.5	1486.2 19.6	686.5 5.9	59.1 0.5	1775
30	8346.4 268.4	7387.4 229.2	5801.7 164.6	4249.2 106.5	2987.0 64.9	2042.2 35.9	1257.9 16.5	583.3 4.9	53.3 0.4	891
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	2906.8 88.9	2758.8 81.8	2482.4 69.1	2089.7 52.4	1617.8 35.0	1139.9 20.1	676.8 9.1	313.2 2.6	37.3 0.2	359
60	1707.9 52.4	1684.2 49.8	1582.3 43.5	1343.7 33.5	1019.8 22.0	684.2 12.2	420.2 5.5	155.0 1.4	27.6 0.1	220
	772.8 24.0	764.4 22.9	708.1 19.9	599.2 15.1	424.4 9.7	302.5 5.3	153.8 2.1	44.0 0.5	17.2 0.1	99
	47.0 3.5	54.0 3.3	71.7 3.2	59.3 2.4	7.5 1.3	15.9 0.7	18.9 0.3	15.4 0.1	6.4 0.0	15
90	10832	7324	3610	1688	930	494	222	65	5	25170

**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.  
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**Candela trace through origin.**

Vertical Trace			
Angle	Intensity (cd)	Angle	Intensity (cd)
90.0	0.00	0.0	104200.00
87.0	2.18	-3.0	101100.00
84.0	95.84	-6.0	92782.56
81.0	289.15	-9.0	80525.98
78.0	522.76	-12.0	66626.52
75.0	776.52	-15.0	53025.99
72.0	1063.49	-18.0	41032.42
69.0	1342.84	-21.0	31157.69
66.0	1617.29	-24.0	23322.80
63.0	1922.78	-27.0	17247.86
60.0	2259.31	-30.0	12846.87
57.0	2626.88	-33.0	9815.94
54.0	3063.60	-36.0	7674.25
51.0	3546.07	-39.0	6231.75
48.0	4071.55	-42.0	5289.69
45.0	4649.85	-45.0	4624.26
42.0	5333.26	-48.0	4049.22
39.0	6307.44	-51.0	3527.55
36.0	7816.38	-54.0	3047.81
33.0	10072.96	-57.0	2612.72
30.0	13259.09	-60.0	2246.24
27.0	17851.21	-63.0	1912.44
24.0	24082.42	-66.0	1611.85
21.0	32041.47	-69.0	1336.85
18.0	41983.21	-72.0	1046.07
15.0	54056.28	-75.0	747.11
12.0	67663.32	-78.0	489.54
9.0	81405.41	-81.0	220.00
6.0	93374.48	-84.0	32.13
3.0	101500.00	-87.0	0.00
0.0	104200.00	-90.0	1.13

Horizontal Trace			
Angle	Intensity (cd)	Angle	Intensity (cd)
90.0	1.06	0.0	104200.00
87.0	39.31	-3.0	101550.00
84.0	138.40	-6.0	93867.44
81.0	358.03	-9.0	83362.72
78.0	577.65	-12.0	70827.78
75.0	797.27	-15.0	57722.01
72.0	1084.81	-18.0	45469.72
69.0	1372.35	-21.0	34679.93
66.0	1659.90	-24.0	25595.59
63.0	1991.85	-27.0	18772.02
60.0	2346.01	-30.0	13813.16
57.0	2700.17	-33.0	10258.39
54.0	3111.27	-36.0	8283.33
51.0	3636.25	-39.0	6746.64
48.0	4161.24	-42.0	5648.32
45.0	4857.00	-45.0	4857.00
42.0	5648.32	-48.0	4161.24
39.0	6746.64	-51.0	3636.25
36.0	8283.33	-54.0	3111.27
33.0	10258.39	-57.0	2700.17
30.0	13813.16	-60.0	2346.01
27.0	18772.02	-63.0	1991.85
24.0	25595.59	-66.0	1659.90
21.0	34679.93	-69.0	1372.35
18.0	45469.72	-72.0	1084.81
15.0	57722.01	-75.0	797.27
12.0	70827.78	-78.0	577.65
9.0	83362.72	-81.0	358.03
6.0	93867.44	-84.0	138.40
3.0	101550.00	-87.0	39.31
0.0	104200.00	-90.0	1.06

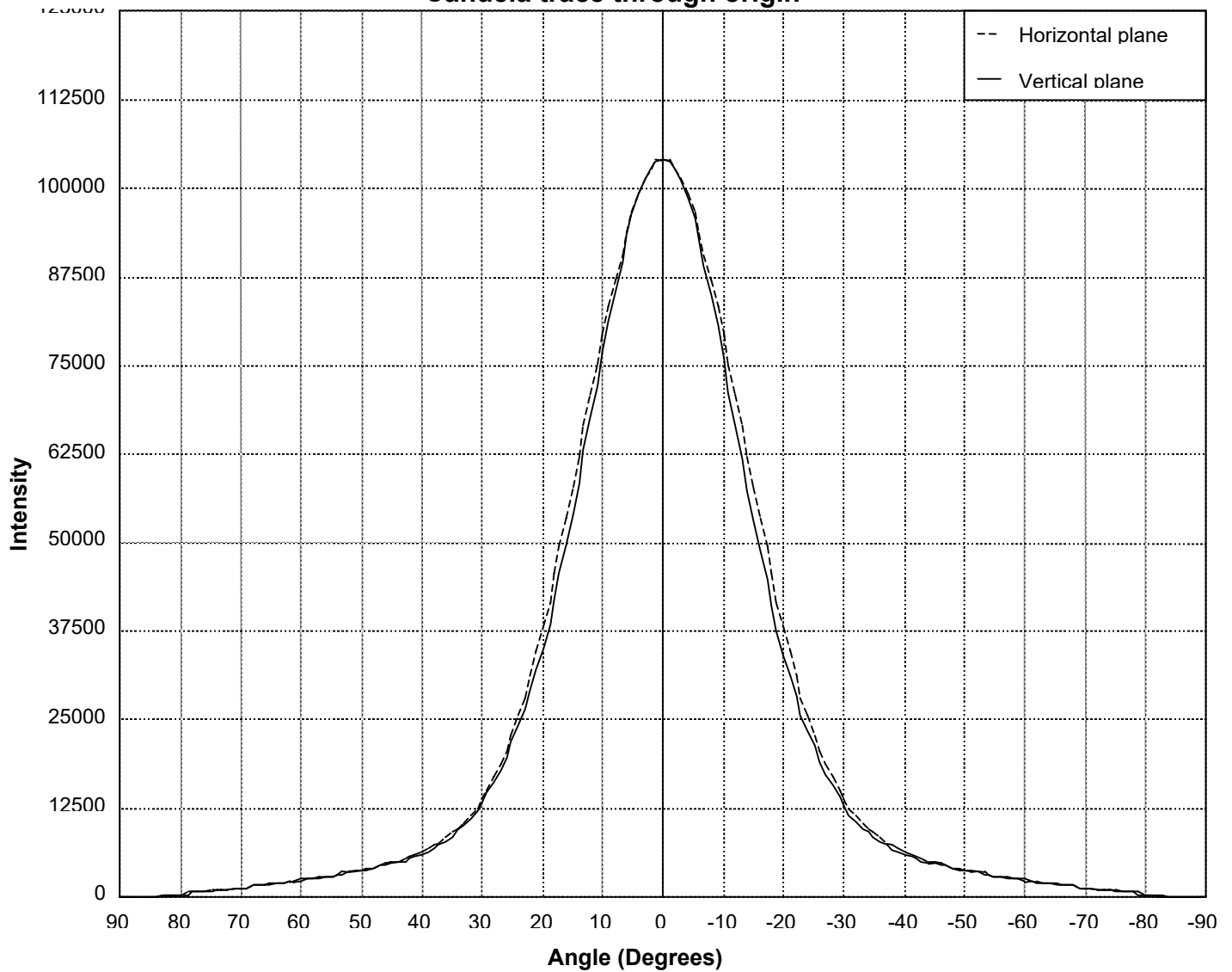
Note: Luminaire orientation as tested.  
The left and right sides of photometric data have been averaged.



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**Candela trace through origin**



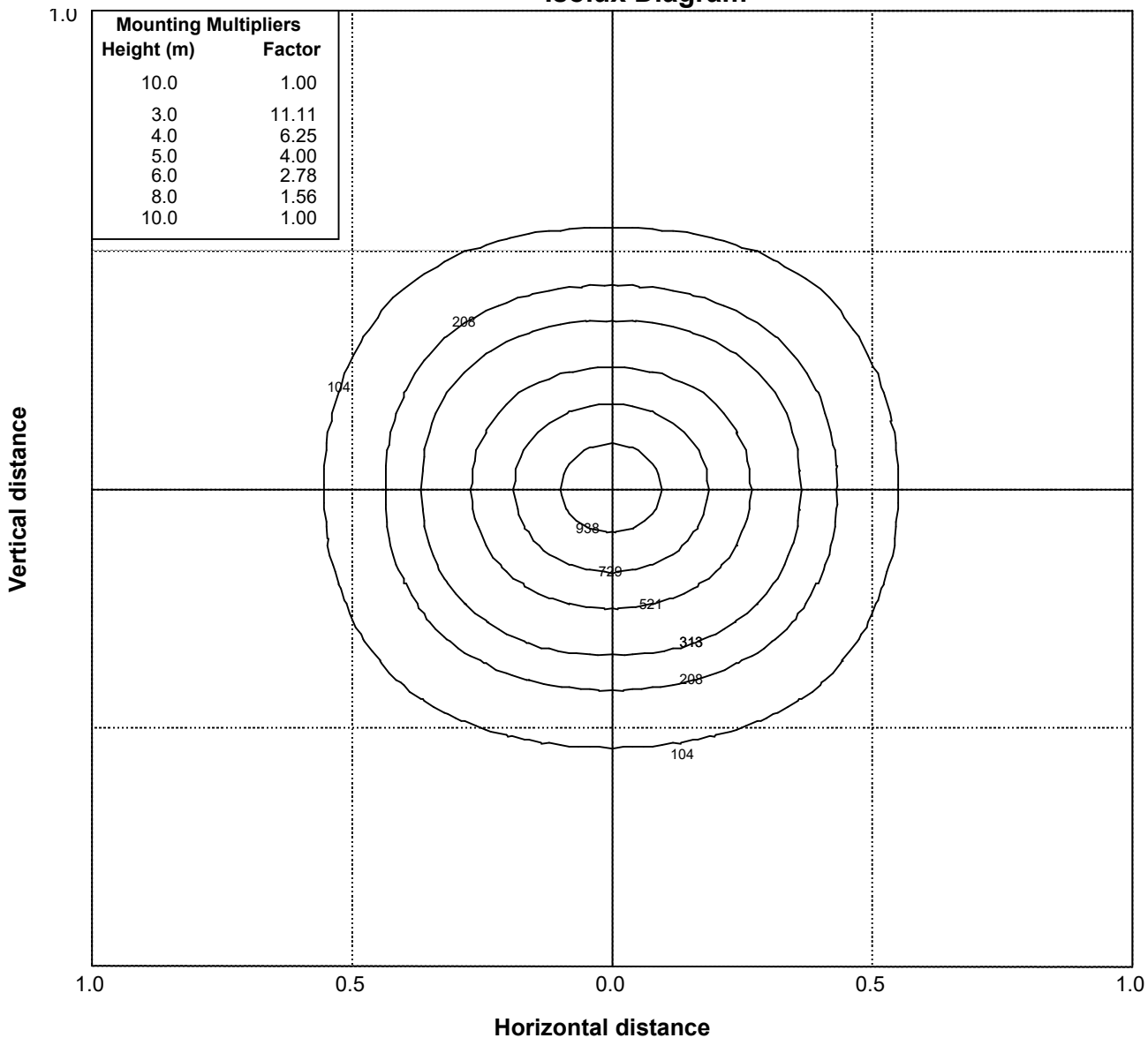
Note: The intensity units are expressed as candelas.  
The left and right sides of photometric data have been averaged.  
Both the vertical and the horizontal trace pass through the nadir.



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**Isolux Diagram**



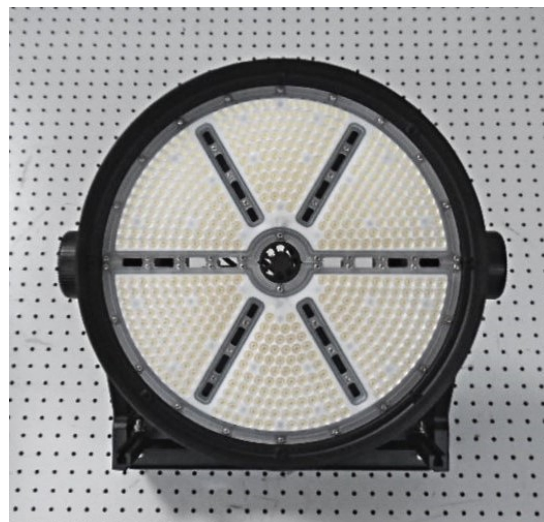
Note: The isolux levels are based on a mounting height of H = 10.0 metres. Grid values show multiples of mounting height.  
The isolux contours are set to 10%, 20%, 30%, 50%, 70%, 90% of the maximum.  
The isolux contour units are expressed as lux. The left and right sides of photometric data have been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





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**Test Distance** 9.5 m  
**Test Temperature** 25.2 °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.