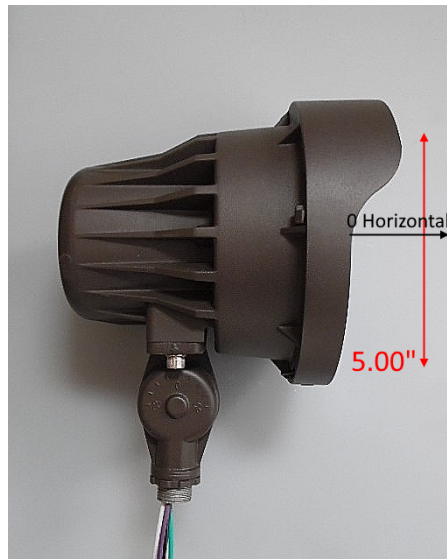




Report of Test

LLIA002524-006

Catalog Number: BFL-30PCS-KNGS (20W/4000K/40deg)
Knuckle or stake mounted, cast aluminum housing,
frosted plastic optic enclosure with clear sections in front of each LED.
86 CW and WW LEDs on one E347474LD8 LED board
One DB-30EP-M52BHP LED driver
120.0Vac, 60.00Hz, 0.1652A, 19.58W, 0.988PF, 5.9%THD(i)



Performance Summary

Total Light Output	3074	lm	Illuminance at 10m	46.6 lux
Luminaire Power	19.6	W	Beam Distance	136.5 Meters (to 0.25 lux)
Luminous Efficacy	156.8	lm/W	Maximum Intensity	4661.0 cd
Beam Spread (50%)	38.6° V x 38.2° H			
Field Spread (10%)	84.6° V x 84.4° H			
NEMA Type	5H x 5V			

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



Test Report No. LLIA002524-006

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Floodlight Summary:

Report data based on absolute values as measured.

Maximum Luminous Intensity 4661.0 cd
(Luminaire orientation as tested.) 1.5° vertical
0.0° horizontal

Beam Spread At 10% of max intensity 84.6° V x 84.4° H
At 50% of max intensity 38.6° V x 38.2° H
At 90% of max intensity 13.5° V x 13.1° H

Beam Flux Total 3074 lm
To 10% of max intensity 2575 lm
To 50% of max intensity 1166 lm
To 90% of max intensity 186 lm

Total Light Output 3074.2 lm

Signed:

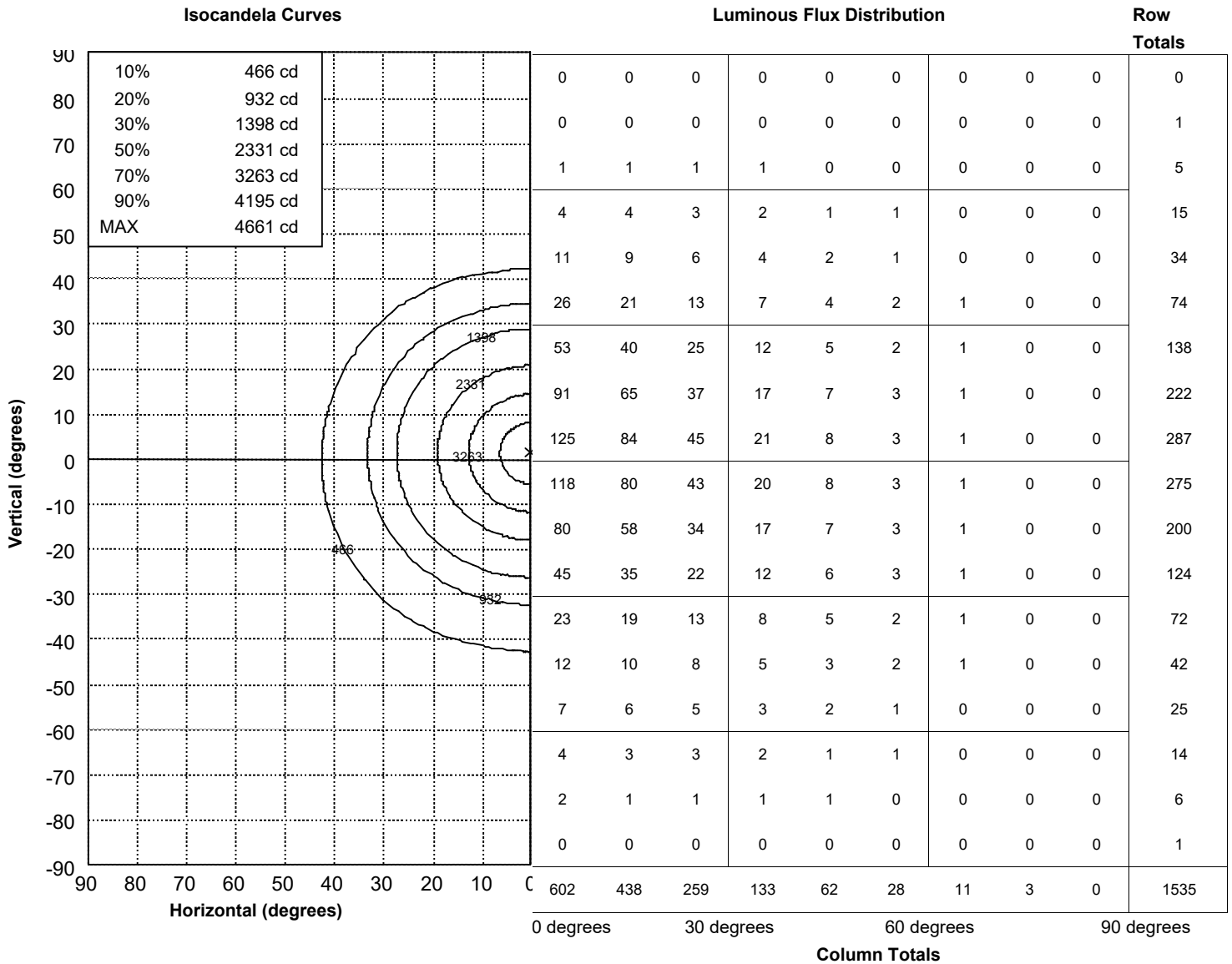
Authorized Signatory

Date of test 4-Nov-2024
Date of report 5-Nov-2024

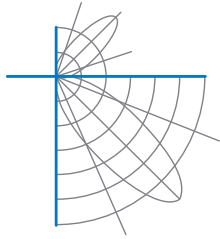


Test Report No. LLIA002524-006

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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	0	3	
-90	0.5	1.8	3.1	4.7	6.5	7.7	9.2	9.9	10.1	1
	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.3	6
	1.4	4.7	11.5	19.8	27.4	35.4	42.1	46.9	49.8	14
	0.0	0.0	0.2	0.3	0.6	0.9	1.2	1.4	1.5	25
	2.2	10.0	23.9	39.6	58.8	78.3	95.9	108.7	115.5	42
	0.0	0.1	0.3	0.7	1.3	2.0	2.7	3.2	3.5	72
-60	2.9	16.5	35.9	65.9	99.8	134.8	171.2	200.1	218.6	124
	0.0	0.1	0.5	1.2	2.2	3.4	4.8	5.9	6.6	200
	3.5	22.0	51.9	93.5	147.3	215.5	285.0	350.6	393.0	275
	0.0	0.2	0.7	1.7	3.3	5.4	7.9	10.4	12.0	287
	3.9	26.3	66.0	127.1	208.9	319.0	475.7	646.3	761.9	222
	0.0	0.2	0.9	2.2	4.6	8.1	13.3	19.1	23.2	138
-30	4.3	29.2	76.4	155.8	266.9	473.5	796.7	1182.1	1477.6	74
	0.0	0.3	1.0	2.8	5.9	12.0	22.2	34.9	44.7	34
	4.4	30.8	82.7	174.3	329.3	655.4	1206.9	1965.1	2632.5	15
	0.0	0.3	1.2	3.2	7.4	16.7	33.8	58.1	79.7	5
	4.5	31.0	84.9	183.1	372.4	797.5	1559.4	2736.8	4004.3	1
	0.0	0.3	1.2	3.4	8.4	20.2	43.3	80.0	118.1	0
0	4.4	29.8	82.0	178.4	367.4	813.4	1614.1	2869.8	4247.3	
	0.0	0.3	1.2	3.3	8.4	20.6	44.8	83.7	124.8	
	4.2	27.3	74.1	159.5	312.4	680.8	1317.9	2207.5	3033.7	
	0.0	0.3	1.0	2.9	7.1	17.4	36.8	65.1	91.3	
	3.8	24.0	62.7	131.2	235.5	469.8	881.5	1369.6	1747.9	
	0.0	0.2	0.9	2.4	5.3	12.0	24.5	40.4	52.8	
30	3.4	19.9	49.0	97.0	166.8	278.6	471.1	705.5	870.9	
	0.0	0.2	0.6	1.7	3.7	7.1	13.2	20.9	26.4	
	2.9	15.4	33.7	61.2	101.7	157.5	222.8	299.6	355.3	
	0.0	0.1	0.4	1.1	2.3	4.0	6.3	8.9	10.9	
	2.3	10.6	18.7	34.9	55.2	77.0	103.0	125.5	140.7	
	0.0	0.1	0.3	0.6	1.2	2.0	2.9	3.7	4.3	
60	1.7	5.6	10.6	14.2	21.8	29.1	36.5	43.0	47.5	
	0.0	0.0	0.1	0.3	0.5	0.7	1.0	1.3	1.5	
	1.0	2.1	4.0	4.6	3.7	4.9	4.8	6.0	7.0	
	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	
	0.4	0.8	0.6	0.5	0.3	0.1	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
90	0	3	11	28	62	133	259	438	602	1535

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	10.1 0.3	9.9 0.3	9.2 0.3	7.7 0.2	6.5 0.1	4.7 0.1	3.1 0.0	1.8 0.0	0.5 0.0	1
	49.8 1.5	46.9 1.4	42.1 1.2	35.4 0.9	27.4 0.6	19.8 0.3	11.5 0.2	4.7 0.0	1.4 0.0	6
	115.5 3.5	108.7 3.2	95.9 2.7	78.3 2.0	58.8 1.3	39.6 0.7	23.9 0.3	10.0 0.1	2.2 0.0	14
-60	218.6 6.6	200.1 5.9	171.2 4.8	134.8 3.4	99.8 2.2	65.9 1.2	35.9 0.5	16.5 0.1	2.9 0.0	25
	393.0 12.0	350.6 10.4	285.0 7.9	215.5 5.4	147.3 3.3	93.5 1.7	51.9 0.7	22.0 0.2	3.5 0.0	42
	761.9 23.2	646.3 19.1	475.7 13.3	319.0 8.1	208.9 4.6	127.1 2.2	66.0 0.9	26.3 0.2	3.9 0.0	72
-30	1477.6 44.7	1182.1 34.9	796.7 22.2	473.5 12.0	266.9 5.9	155.8 2.8	76.4 1.0	29.2 0.3	4.3 0.0	124
	2632.5 79.7	1965.1 58.1	1206.9 33.8	655.4 16.7	329.3 7.4	174.3 3.2	82.7 1.2	30.8 0.3	4.4 0.0	200
	4004.3 118.1	2736.8 80.0	1559.4 43.3	797.5 20.2	372.4 8.4	183.1 3.4	84.9 1.2	31.0 0.3	4.5 0.0	275
0	4247.3 124.8	2869.8 83.7	1614.1 44.8	813.4 20.6	367.4 8.4	178.4 3.3	82.0 1.2	29.8 0.3	4.4 0.0	287
	3033.7 91.3	2207.5 65.1	1317.9 36.8	680.8 17.4	312.4 7.1	159.5 2.9	74.1 1.0	27.3 0.3	4.2 0.0	222
	1747.9 52.8	1369.6 40.4	881.5 24.5	469.8 12.0	235.5 5.3	131.2 2.4	62.7 0.9	24.0 0.2	3.8 0.0	138
30	870.9 26.4	705.5 20.9	471.1 13.2	278.6 7.1	166.8 3.7	97.0 1.7	49.0 0.6	19.9 0.2	3.4 0.0	74
	355.3 10.9	299.6 8.9	222.8 6.3	157.5 4.0	101.7 2.3	61.2 1.1	33.7 0.4	15.4 0.1	2.9 0.0	34
	140.7 4.3	125.5 3.7	103.0 2.9	77.0 2.0	55.2 1.2	34.9 0.6	18.7 0.3	10.6 0.1	2.3 0.0	15
60	47.5 1.5	43.0 1.3	36.5 1.0	29.1 0.7	21.8 0.5	14.2 0.3	10.6 0.1	5.6 0.0	1.7 0.0	5
	7.0 0.2	6.0 0.2	4.8 0.2	4.9 0.1	3.7 0.1	4.6 0.1	4.0 0.1	2.1 0.0	1.0 0.0	1
	0.0 0.0	0.0 0.0	0.0 0.0	0.1 0.0	0.3 0.0	0.5 0.0	0.6 0.0	0.8 0.0	0.4 0.0	0
90	602	438	259	133	62	28	11	3	0	1535

Lumen Totals

Legend:

candelas
lumens

Standard table of intensity and illuminance in accordance with IES procedures.
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120.0Vac, 60.00Hz, 0.1652A, 19.58W, 0.988PF, 5.9%THD(i)

Candela trace through origin.

Vertical Trace			
Angle	Intensity (cd)	Angle	Intensity (cd)
90.0	0.07	0.0	4643.75
87.0	0.00	-3.0	4459.32
84.0	0.01	-6.0	4120.87
81.0	0.05	-9.0	3679.64
78.0	0.62	-12.0	3201.65
75.0	6.32	-15.0	2739.43
72.0	15.36	-18.0	2314.02
69.0	27.28	-21.0	1937.52
66.0	41.56	-24.0	1607.58
63.0	60.09	-27.0	1323.75
60.0	83.47	-30.0	1081.41
57.0	116.79	-33.0	881.93
54.0	157.35	-36.0	718.75
51.0	200.83	-39.0	586.08
48.0	265.52	-42.0	478.96
45.0	355.35	-45.0	393.23
42.0	473.97	-48.0	327.28
39.0	625.64	-51.0	276.39
36.0	816.85	-54.0	239.06
33.0	1033.43	-57.0	192.19
30.0	1278.95	-60.0	156.84
27.0	1570.99	-63.0	131.97
24.0	1911.13	-66.0	108.18
21.0	2292.39	-69.0	86.68
18.0	2717.97	-72.0	67.53
15.0	3180.13	-75.0	49.63
12.0	3645.75	-78.0	34.85
9.0	4074.05	-81.0	22.59
6.0	4418.77	-84.0	12.34
3.0	4625.96	-87.0	4.82
0.0	4643.75	-90.0	1.08

Horizontal Trace			
Angle	Intensity (cd)	Angle	Intensity (cd)
90.0	0.05	0.0	4643.75
87.0	2.67	-3.0	4538.76
84.0	7.05	-6.0	4244.29
81.0	14.88	-9.0	3843.08
78.0	22.70	-12.0	3378.91
75.0	30.53	-15.0	2914.67
72.0	46.61	-18.0	2478.39
69.0	62.69	-21.0	2085.55
66.0	78.76	-24.0	1736.52
63.0	103.79	-27.0	1432.05
60.0	133.30	-30.0	1170.17
57.0	162.80	-33.0	942.34
54.0	198.35	-36.0	763.58
51.0	245.97	-39.0	607.88
48.0	293.58	-42.0	475.26
45.0	377.34	-45.0	377.34
42.0	475.26	-48.0	293.58
39.0	607.88	-51.0	245.97
36.0	763.58	-54.0	198.35
33.0	942.34	-57.0	162.80
30.0	1170.17	-60.0	133.30
27.0	1432.05	-63.0	103.79
24.0	1736.52	-66.0	78.76
21.0	2085.55	-69.0	62.69
18.0	2478.39	-72.0	46.61
15.0	2914.67	-75.0	30.53
12.0	3378.91	-78.0	22.70
9.0	3843.08	-81.0	14.88
6.0	4244.29	-84.0	7.05
3.0	4538.76	-87.0	2.67
0.0	4643.75	-90.0	0.05

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



Test Report No. LLIA002524-006

Catalog Number: BFL-30PCS-KNGS (20W/4000K/40deg)

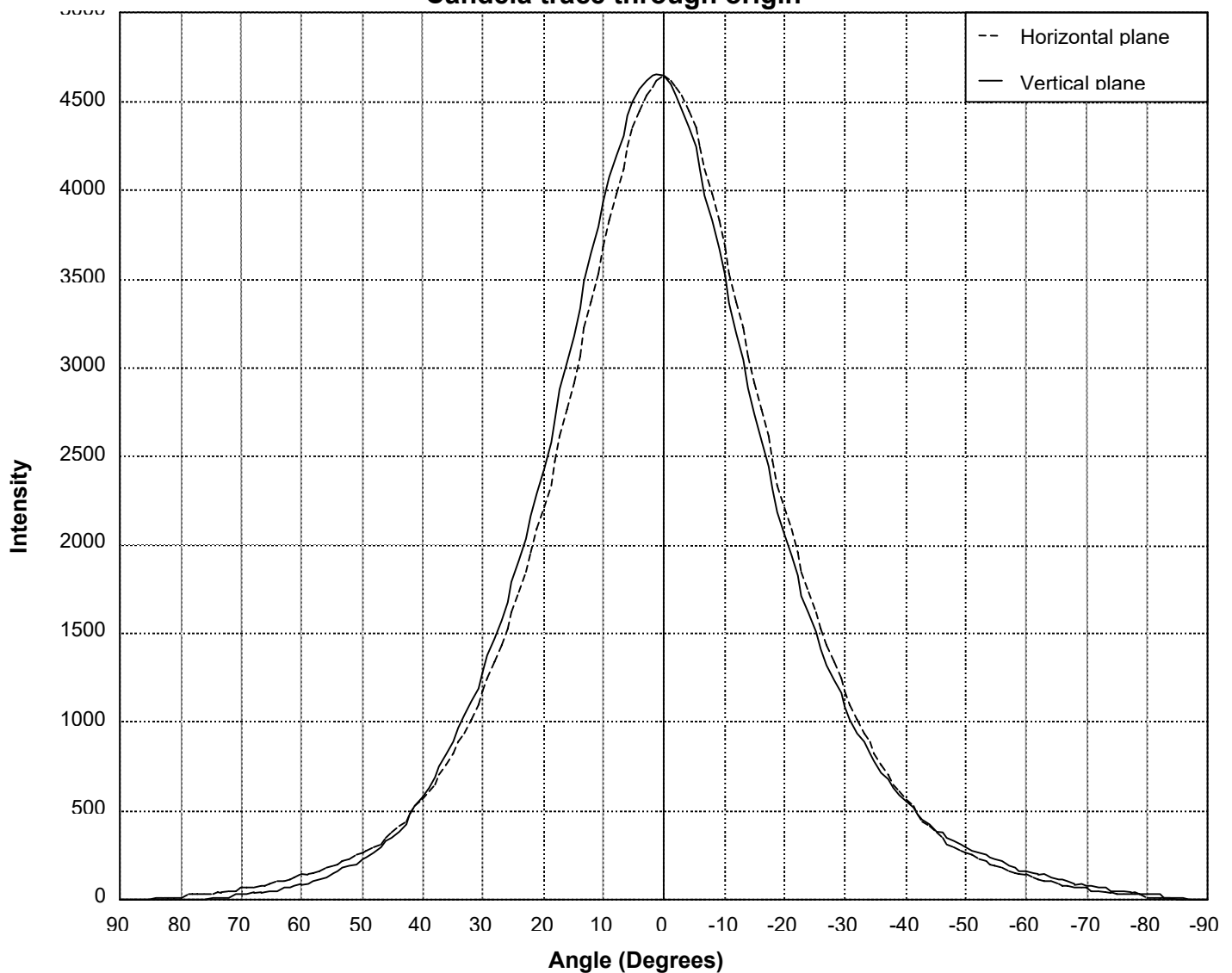
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Candela trace through origin



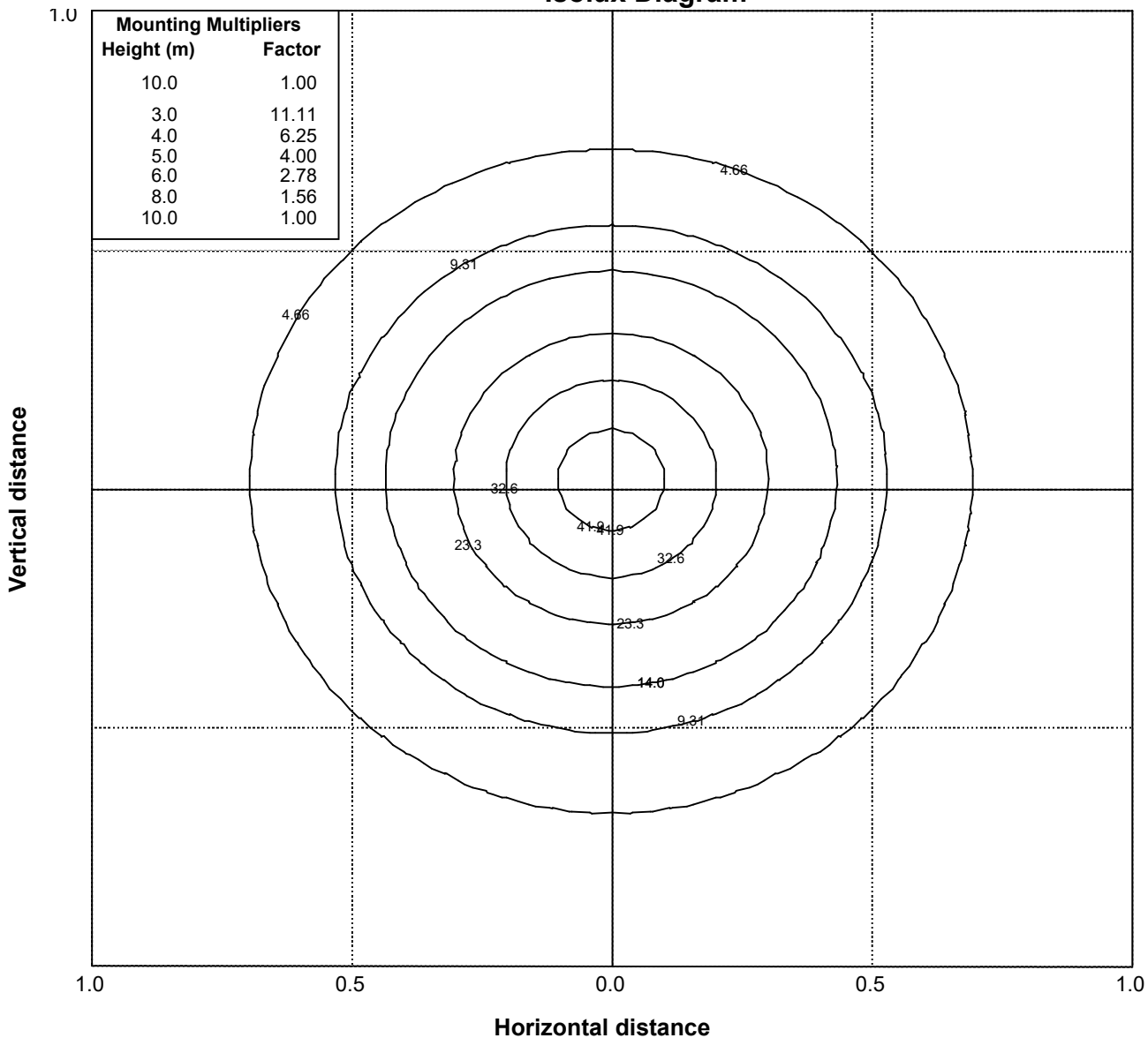
Note: The intensity units are expressed as candelas.
The left and right sides of photometric data have been averaged.
Both the vertical and the horizontal trace pass through the nadir.



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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 24.6 °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, β) 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.

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