



**itl boulder**  
THE LIGHT CENTER OF THE INDUSTRY SINCE 1955

**NVLAP**  
NVLAP LAB CODE: 200925-0

INDEPENDENT TESTING LABORATORIES, INC.  
4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA

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REPORT NUMBER: ITL83836

PAGE: 1 OF 7

ISSUE DATE: 12/31/14

REVISED: 11/10/15

PREPARED FOR: B-K LIGHTING, INC.

CATALOG NUMBER: K2-LED-X48-FL-12, SM-AP-LED-X48-FL-12, AP-LED-X48-FL-12, TY2-LED-X48-FL-12

LUMINAIRE: CAST METAL HOUSING WITH UNFINISHED BROWN INTERIOR FINISH, CAST METAL DRIVER HOUSING, MACHINED BLACK FINISHED CIRCUIT BOARD MOUNTING BLOCK, 1 CIRCUIT BOARD WITH ONE LED, MOLDED WHITE PLASTIC LED SURROUND, MOLDED MULTI-FACETED TIERED PLASTIC REFLECTOR WITH TEXTURED SEMI-SPECULAR FINISH, CLEAR MICRO-PRISMATIC FLAT GLASS LENS IN MACHINED WHITE PAINTED METAL FRAME. LENS PRISMS IN.

LAMP: ONE WHITE MULTI-CHIP LIGHT EMITTING DIODE (LED), AIMED AT THE HORIZON.

INPUT ELECTRICAL: 120.0 VOLTS, 42.1 WATTS, 0.354 AMPS

LED DRIVER: ELDOLED ECODRIVE 561/S, DRIVER HAS MULTIPLE LEADS, ONLY LINE INPUT AND LED OUTPUT LEADS CONNECTED FOR THIS TEST. CLIENT STATES DRIVER PROGRAMMED FOR 1050mA OUTPUT.

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120VAC, 60Hz) TO THE DRIVER.

TEST PROCEDURE: IESNA LM-79-08

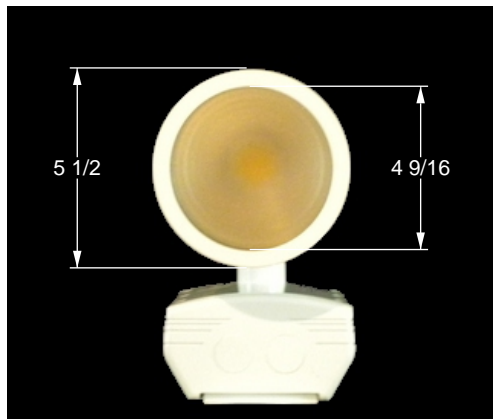
TEST DISTANCE = 20.0 FEET

#### AXIAL CANDLEPOWER

#### FLOODLIGHT CHARACTERISTICS

IES TYPE 5H X 5V  
MAXIMUM CANDLEPOWER 5539. AT 0.0 H, 0.0 V  
HORIZONTAL BEAM ANGLE (50%) 45.5 deg  
VERTICAL BEAM ANGLE (50%) 45.3 deg  
HORIZONTAL FIELD ANGLE (10%) 77.2 deg  
VERTICAL FIELD ANGLE (10%) 74.8 deg  
BEAM LUMENS (% FIXTURE) 1946. ( 53.3 % )  
FIELD LUMENS (% FIXTURE) 3134. ( 85.8 % )  
TOTAL LUMENS (% FIXTURE) 3653. (100.0 % )  
EFFICACY = 86.8 lm/W

DEG	HORIZ.	DEG	VERT.
90.0	0.	90.0	0.
85.0	16.	85.0	4.
75.0	37.	75.0	35.
65.0	69.	65.0	65.
55.0	126.	55.0	118.
47.5	218.	47.5	202.
42.5	350.	42.5	311.
37.5	609.	37.5	549.
33.0	1064.	33.0	1030.
29.0	1671.	29.0	1669.
25.5	2290.	25.5	2306.
22.5	2810.	22.5	2849.
19.5	3338.	19.5	3380.
17.0	3758.	17.0	3823.
15.0	4104.	15.0	4167.
13.0	4431.	13.0	4488.
11.0	4732.	11.0	4774.
9.0	4987.	9.0	5024.
7.0	5197.	7.0	5211.
5.0	5369.	5.0	5370.
3.0	5480.	3.0	5487.
1.0	5530.	1.0	5535.
0.0	5539.	0.0	5539.
-1.0	5530.	-1.0	5533.
-3.0	5480.	-3.0	5468.
-5.0	5369.	-5.0	5359.
-7.0	5197.	-7.0	5161.
-9.0	4987.	-9.0	4929.
-11.0	4732.	-11.0	4662.
-13.0	4431.	-13.0	4363.
-15.0	4104.	-15.0	4035.
-17.0	3758.	-17.0	3695.
-19.5	3338.	-19.5	3256.
-22.5	2810.	-22.5	2728.
-25.5	2290.	-25.5	2181.
-29.0	1671.	-29.0	1559.
-33.0	1064.	-33.0	963.
-37.5	609.	-37.5	539.
-42.5	350.	-42.5	310.
-47.5	218.	-47.5	198.
-55.0	126.	-55.0	116.
-65.0	69.	-65.0	64.
-75.0	37.	-75.0	35.
-85.0	16.	-85.0	14.
-90.0	0.	-90.0	0.



Checked B HYRE

Approved R BEATTIE  
Lighting Engineer

ALL CANDELA AND LUMEN VALUES IN THIS REPORT ARE BASED ON ABSOLUTE PHOTOMETRY.

THIS REPORT IS BASED ON PUBLISHED INDUSTRY PROCEDURES. FIELD PERFORMANCE MAY DIFFER FROM LABORATORY PERFORMANCE.



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## CANDELA TABULATION

### AVERAGE OF RIGHT AND LEFT SIDES

	0.0	1.0	3.0	5.0	7.0	9.0	11.0	13.0	15.0	17.0	19.5	22.5	25.5	29.0	33.0	37.5	42.5	47.5	55.0	65.0	75.0	85.0	90.0
90.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
85.0	4.	1.	4.	6.	7.	9.	10.	12.	13.	14.	15.	15.	15.	15.	15.	14.	14.	13.	10.	7.	4.	1.	0.
75.0	35.	35.	36.	36.	35.	35.	35.	35.	35.	35.	34.	34.	33.	32.	31.	29.	27.	25.	22.	18.	12.	4.	0.
65.0	65.	65.	65.	65.	65.	64.	64.	63.	63.	62.	61.	60.	58.	56.	53.	50.	46.	41.	35.	26.	18.	7.	0.
55.0	118.	118.	118.	117.	116.	115.	114.	112.	110.	107.	104.	100.	95.	90.	83.	76.	68.	60.	49.	35.	22.	9.	0.
47.5	202.	203.	203.	201.	199.	195.	191.	185.	179.	173.	166.	155.	145.	132.	119.	104.	90.	77.	60.	42.	25.	11.	0.
42.5	311.	314.	312.	308.	305.	297.	286.	275.	262.	249.	234.	216.	196.	175.	154.	131.	109.	91.	69.	46.	28.	12.	0.
37.5	549.	552.	545.	542.	524.	511.	482.	455.	423.	393.	356.	316.	278.	239.	201.	165.	131.	106.	77.	50.	30.	13.	0.
33.0	1030.	1034.	1027.	1004.	959.	910.	848.	788.	718.	647.	565.	472.	397.	323.	257.	202.	155.	122.	85.	54.	31.	13.	0.
29.0	1669.	1667.	1657.	1626.	1569.	1487.	1388.	1273.	1158.	1026.	876.	709.	566.	439.	333.	248.	182.	137.	93.	58.	33.	14.	0.
25.5	2306.	2331.	2293.	2247.	2171.	2074.	1945.	1797.	1645.	1472.	1259.	1008.	784.	582.	419.	297.	208.	150.	100.	60.	34.	14.	0.
22.5	2849.	2859.	2829.	2774.	2688.	2577.	2437.	2273.	2091.	1891.	1627.	1309.	1012.	732.	506.	344.	232.	162.	105.	62.	35.	15.	0.
19.5	3380.	3371.	3339.	3274.	3176.	3062.	2909.	2730.	2529.	2306.	2007.	1631.	1269.	906.	605.	394.	256.	174.	110.	64.	35.	15.	0.
17.0	3823.	3819.	3778.	3695.	3593.	3452.	3283.	3080.	2858.	2611.	2293.	1886.	1484.	1059.	692.	437.	275.	183.	114.	65.	36.	15.	0.
15.0	4167.	4166.	4120.	4032.	3909.	3750.	3562.	3346.	3099.	2846.	2511.	2083.	1650.	1182.	761.	471.	290.	191.	116.	66.	36.	15.	0.
13.0	4488.	4484.	4435.	4347.	4211.	4034.	3827.	3576.	3318.	3061.	2709.	2265.	1804.	1298.	828.	502.	304.	197.	119.	67.	36.	15.	0.
11.0	4774.	4769.	4720.	4623.	4477.	4289.	4069.	3803.	3526.	3243.	2876.	2414.	1940.	1399.	890.	530.	317.	203.	121.	67.	37.	16.	0.
9.0	5024.	5021.	4965.	4861.	4709.	4517.	4285.	4011.	3711.	3412.	3018.	2545.	2054.	1489.	945.	556.	328.	208.	122.	68.	37.	16.	0.
7.0	5211.	5217.	5163.	5062.	4904.	4703.	4452.	4179.	3861.	3551.	3141.	2656.	2149.	1564.	992.	577.	337.	212.	124.	68.	37.	16.	0.
5.0	5370.	5374.	5317.	5213.	5052.	4849.	4589.	4309.	3983.	3659.	3230.	2733.	2222.	1619.	1028.	593.	343.	215.	125.	69.	37.	16.	0.
3.0	5487.	5475.	5421.	5313.	5152.	4935.	4685.	4393.	4064.	3727.	3293.	2785.	2267.	1655.	1053.	604.	348.	217.	125.	69.	37.	16.	0.
1.0	5535.	5529.	5479.	5360.	5194.	4986.	4726.	4431.	4102.	3756.	3334.	2810.	2291.	1670.	1064.	610.	350.	218.	126.	69.	37.	16.	0.
0.0	5539.	5530.	5480.	5369.	5197.	4987.	4732.	4431.	4104.	3758.	3338.	2810.	2290.	1671.	1064.	609.	350.	218.	126.	69.	37.	16.	0.
-1.0	5533.	5529.	5471.	5355.	5190.	4976.	4724.	4422.	4095.	3749.	3321.	2804.	2283.	1666.	1062.	608.	349.	217.	126.	69.	37.	16.	0.
-3.0	5468.	5461.	5404.	5298.	5128.	4912.	4668.	4362.	4042.	3700.	3272.	2769.	2250.	1639.	1044.	599.	346.	216.	125.	69.	37.	16.	0.
-5.0	5359.	5336.	5280.	5169.	5012.	4803.	4559.	4257.	3948.	3617.	3198.	2706.	2190.	1594.	1013.	586.	340.	214.	124.	69.	37.	16.	0.
-7.0	5161.	5161.	5104.	5000.	4841.	4649.	4406.	4114.	3816.	3500.	3101.	2616.	2108.	1530.	972.	569.	333.	210.	123.	68.	37.	16.	0.
-9.0	4929.	4928.	4872.	4777.	4636.	4443.	4210.	3935.	3651.	3350.	2970.	2497.	2003.	1449.	920.	547.	323.	205.	121.	68.	37.	16.	0.
-11.0	4662.	4658.	4606.	4516.	4371.	4199.	3981.	3724.	3459.	3175.	2814.	2355.	1876.	1352.	861.	519.	312.	200.	120.	67.	37.	15.	0.
-13.0	4363.	4361.	4311.	4225.	4089.	3923.	3725.	3489.	3241.	2976.	2623.	2186.	1729.	1239.	797.	489.	298.	194.	117.	66.	36.	15.	0.
-15.0	4035.	4043.	3995.	3911.	3786.	3631.	3430.	3234.	2998.	2754.	2418.	1993.	1572.	1122.	731.	456.	284.	187.	115.	66.	36.	15.	0.
-17.0	3695.	3707.	3662.	3571.	3457.	3321.	3146.	2960.	2738.	2514.	2192.	1790.	1405.	1002.	663.	424.	269.	180.	112.	65.	36.	15.	0.
-19.5	3256.	3272.	3215.	3150.	3052.	2937.	2776.	2602.	2391.	2172.	1880.	1524.	1193.	855.	581.	383.	250.	171.	109.	63.	35.	15.	0.
-22.5	2728.	2724.	2692.	2634.	2547.	2438.	2295.	2131.	1949.	1758.	1510.	1216.	947.	693.	488.	335.	227.	159.	104.	62.	34.	15.	0.
-25.5	2181.	2195.	2149.	2096.	2022.	1926.	1800.	1660.	1512.	1357.	1159.	934.	735.	555.	406.	290.	204.	148.	99.	60.	34.	14.	0.
-29.0	1559.	1568.	1542.	1489.	1433.	1357.	1271.	1162.	1056.	941.	809.	664.	541.	425.	325.	243.	178.	135.	92.	57.	32.	14.	0.
-33.0	963.	970.	951.	917.	878.	836.	793.	724.	668.	609.	537.	457.	389.	319.	252.	198.	151.	121.	85.	54.	31.	13.	0.
-37.5	539.	533.	531.	523.	509.	491.	469.	440.	413.	385.	349.	311.	275.	236.	197.	162.	129.	105.	77.	50.	29.	12.	0.
-42.5	310.	309.	308.	306.	300.	293.	284.	271.	260.	245.	231.	211.	192.	172.	151.	128.	108.	90.	69.	46.	27.	12.	0.
-47.5	198.	197.	197.	196.	192.	189.	186.	181.	176.	169.	162.	152.	142.	130.	117.	103.	89.	77.	60.	41.	25.	11.	0.
-55.0	116.	115.	115.	115.	114.	113.	111.	109.	107.	105.	102.	98.	94.	88.	82.	75.	68.	60.	49.	34.	22.	9.	0.
-65.0	64.	64.	64.	64.	64.	64.	63.	63.	62.	61.	61.	59.	57.	55.	53.	49.	45.	41.	34.	25.	18.	7.	0.
-75.0	35.	35.	35.	35.	35.	35.	35.	34.	34.	34.	33.	33.	32.	31.	30.	28.	26.	24.	21.	18.	12.	4.	0.
-85.0	14.	14.	14.	14.	14.	14.	14.	14.	14.	14.	14.	14.	14.	13.	12.	12.	12.	11.	9.	7.	4.	1.	0.
-90.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

BEAM EDGE = 2770. CP = 50% OF MAX  
FIELD EDGE = 554. CP = 10% OF MAX

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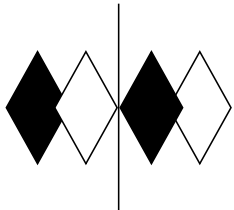
## CANDELA TABULATION - FIELD ONLY

### AVERAGE OF RIGHT AND LEFT SIDES

	0.0	1.0	3.0	5.0	7.0	9.0	11.0	13.0	15.0	17.0	19.5	22.5	25.5	29.0	33.0	37.5	42.5	47.5	55.0	65.0	75.0	85.0	90.0
90.0																							
85.0																							
75.0																							
65.0																							
55.0																							
47.5																							
42.5																							
37.5																							
33.0	1030.	1034.	1027.	1004.	959.	910.	848.	788.	718.	647.	565.												
29.0	1669.	1667.	1657.	1626.	1569.	1487.	1388.	1273.	1158.	1026.	876.	709.	566.										
25.5	2306.	2331.	2293.	2247.	2171.	2074.	1945.	1797.	1645.	1472.	1259.	1008.	784.	582.									
22.5	2849.	2859.	2829.	2774.	2688.	2577.	2437.	2273.	2091.	1891.	1627.	1309.	1012.	732.									
19.5	3380.	3371.	3339.	3274.	3176.	3062.	2909.	2730.	2529.	2306.	2007.	1631.	1269.	906.	605.								
17.0	3823.	3819.	3778.	3695.	3593.	3452.	3283.	3080.	2858.	2611.	2293.	1886.	1484.	1059.	692.								
15.0	4167.	4166.	4120.	4032.	3909.	3750.	3562.	3346.	3099.	2846.	2511.	2083.	1650.	1182.	761.								
13.0	4488.	4484.	4435.	4347.	4211.	4034.	3827.	3576.	3318.	3061.	2709.	2265.	1804.	1298.	828.								
11.0	4774.	4769.	4720.	4623.	4477.	4289.	4069.	3803.	3526.	3243.	2876.	2414.	1940.	1399.	890.								
9.0	5024.	5021.	4965.	4861.	4709.	4517.	4285.	4011.	3711.	3412.	3018.	2545.	2054.	1489.	945.	556.							
7.0	5211.	5217.	5163.	5062.	4904.	4703.	4452.	4179.	3861.	3551.	3141.	2656.	2149.	1564.	992.	577.							
5.0	5370.	5374.	5317.	5213.	5052.	4849.	4589.	4309.	3983.	3659.	3230.	2733.	2222.	1619.	1028.	593.							
3.0	5487.	5475.	5421.	5313.	5152.	4935.	4685.	4393.	4064.	3727.	3293.	2785.	2267.	1655.	1053.	604.							
1.0	5535.	5529.	5479.	5360.	5194.	4986.	4726.	4431.	4102.	3756.	3334.	2810.	2291.	1670.	1064.	610.							
0.0	5539.	5530.	5480.	5369.	5197.	4987.	4732.	4431.	4104.	3758.	3338.	2810.	2290.	1671.	1064.	609.							
-1.0	5533.	5529.	5471.	5355.	5190.	4976.	4724.	4422.	4095.	3749.	3321.	2804.	2283.	1666.	1062.	608.							
-3.0	5468.	5461.	5404.	5298.	5128.	4912.	4668.	4362.	4042.	3700.	3272.	2769.	2250.	1639.	1044.	599.							
-5.0	5359.	5336.	5280.	5169.	5012.	4803.	4559.	4257.	3948.	3617.	3198.	2706.	2190.	1594.	1013.	586.							
-7.0	5161.	5161.	5104.	5000.	4841.	4649.	4406.	4114.	3816.	3500.	3101.	2616.	2108.	1530.	972.	569.							
-9.0	4929.	4928.	4872.	4777.	4636.	4443.	4210.	3935.	3651.	3350.	2970.	2497.	2003.	1449.	920.								
-11.0	4662.	4658.	4606.	4516.	4371.	4199.	3981.	3724.	3459.	3175.	2814.	2355.	1876.	1352.	861.								
-13.0	4363.	4361.	4311.	4225.	4089.	3923.	3725.	3489.	3241.	2976.	2623.	2186.	1729.	1239.	797.								
-15.0	4035.	4043.	3995.	3911.	3786.	3631.	3430.	3234.	2998.	2754.	2418.	1993.	1572.	1122.	731.								
-17.0	3695.	3707.	3662.	3571.	3457.	3321.	3146.	2960.	2738.	2514.	2192.	1790.	1405.	1002.	663.								
-19.5	3256.	3272.	3215.	3150.	3052.	2937.	2776.	2602.	2391.	2172.	1880.	1524.	1193.	855.	581.								
-22.5	2728.	2724.	2692.	2634.	2547.	2438.	2295.	2131.	1949.	1758.	1510.	1216.	947.	693.									
-25.5	2181.	2195.	2149.	2096.	2022.	1926.	1800.	1660.	1512.	1357.	1159.	934.	735.	555.									
-29.0	1559.	1568.	1542.	1489.	1433.	1357.	1271.	1162.	1056.	941.	809.	664.											
-33.0	963.	970.	951.	917.	878.	836.	793.	724.	668.	609.													
-37.5																							
-42.5																							
-47.5																							
-55.0																							
-65.0																							
-75.0																							
-85.0																							
-90.0																							

BEAM EDGE = 2770. CP = 50% OF MAX  
FIELD EDGE = 554. CP = 10% OF MAX

THIS REPORT IS BASED ON PUBLISHED INDUSTRY PROCEDURES. FIELD PERFORMANCE MAY DIFFER FROM LABORATORY PERFORMANCE.



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THE LIGHT CENTER OF THE INDUSTRY SINCE 1955



INDEPENDENT TESTING LABORATORIES, INC.  
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REPORT NUMBER: ITL83836  
ISSUE DATE: 12/31/14  
PREPARED FOR: B-K LIGHTING, INC.

PAGE: 4 OF 7  
REVISED: 11/10/15

## LUMEN TABULATION

### AVERAGE OF RIGHT AND LEFT SIDES

	0	2	4	6	8	10	12	14	16	18	21	24	27	31	35	40	45	50	60	70	80	90	TOTAL
90	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.0	0.0	1.9
80	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.2	0.1	0.0	0.0	5.0
70	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.5	0.6	0.5	0.4	0.6	0.3	0.1	0.0	0.0	8.7
60	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.9	0.8	0.8	1.0	0.8	0.9	0.8	0.6	0.9	0.5	0.2	0.0	0.0	14.3
50	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.7	0.7	0.6	0.7	0.6	0.6	0.5	0.4	0.5	0.3	0.1	0.0	0.0	10.9
45	1.0	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.7	1.0	0.9	0.8	0.9	0.8	0.8	0.6	0.5	0.6	0.3	0.1	0.0	0.0	15.2
40	1.7	1.7	1.6	1.6	1.5	1.4	1.4	1.2	1.1	1.5	1.3	1.1	1.3	1.0	1.0	0.7	0.5	0.7	0.3	0.1	0.0	0.0	23.0
35	2.5	2.5	2.4	2.3	2.2	2.0	1.9	1.7	1.5	1.9	1.6	1.3	1.4	1.1	1.0	0.7	0.5	0.6	0.3	0.1	0.0	0.0	29.5
31	4.1	4.0	3.9	3.8	3.6	3.3	3.0	2.7	2.4	3.0	2.4	1.9	1.9	1.4	1.2	0.8	0.6	0.6	0.3	0.1	0.0	0.0	45.0
27	4.3	4.2	4.1	3.9	3.7	3.5	3.2	2.9	2.6	3.3	2.6	1.9	1.9	1.3	1.1	0.7	0.5	0.5	0.2	0.1	0.0	0.0	46.4
24	5.2	5.2	5.1	4.9	4.7	4.4	4.0	3.7	3.3	4.2	3.3	2.5	2.3	1.6	1.2	0.8	0.5	0.5	0.2	0.1	0.0	0.0	57.7
21	6.2	6.1	6.0	5.8	5.5	5.2	4.9	4.5	4.0	5.2	4.1	3.1	2.9	1.9	1.4	0.9	0.5	0.6	0.2	0.1	0.0	0.0	69.0
18	4.7	4.6	4.5	4.3	4.2	3.9	3.7	3.4	3.0	4.0	3.2	2.4	2.3	1.4	1.1	0.6	0.4	0.4	0.2	0.1	0.0	0.0	52.2
16	5.1	5.0	4.9	4.7	4.5	4.3	4.0	3.6	3.3	4.3	3.5	2.7	2.5	1.6	1.1	0.7	0.4	0.4	0.2	0.1	0.0	0.0	56.9
14	5.5	5.4	5.3	5.1	4.9	4.6	4.2	3.9	3.6	4.7	3.8	3.0	2.8	1.7	1.2	0.7	0.4	0.4	0.2	0.1	0.0	0.0	61.3
12	5.8	5.7	5.6	5.4	5.2	4.9	4.5	4.1	3.8	5.0	4.1	3.2	3.0	1.8	1.3	0.7	0.4	0.4	0.2	0.1	0.0	0.0	65.2
10	6.1	6.0	5.9	5.7	5.4	5.1	4.8	4.4	4.0	5.2	4.3	3.4	3.2	1.9	1.3	0.7	0.4	0.4	0.2	0.1	0.0	0.0	68.6
8	6.4	6.3	6.1	5.9	5.7	5.3	5.0	4.5	4.1	5.4	4.5	3.5	3.3	2.0	1.4	0.8	0.4	0.4	0.2	0.1	0.0	0.0	71.4
6	6.5	6.5	6.3	6.1	5.8	5.5	5.1	4.7	4.3	5.6	4.6	3.7	3.5	2.1	1.4	0.8	0.4	0.4	0.2	0.1	0.0	0.0	73.6
4	6.7	6.6	6.4	6.2	5.9	5.6	5.2	4.8	4.3	5.7	4.7	3.7	3.5	2.2	1.5	0.8	0.4	0.4	0.2	0.1	0.0	0.0	75.0
2	6.7	6.7	6.5	6.3	6.0	5.7	5.3	4.8	4.4	5.7	4.7	3.8	3.6	2.2	1.5	0.8	0.4	0.4	0.2	0.1	0.0	0.0	75.7
0	6.7	6.7	6.5	6.3	6.0	5.7	5.2	4.8	4.4	5.7	4.7	3.8	3.6	2.2	1.5	0.8	0.4	0.4	0.2	0.1	0.0	0.0	75.6
-2	6.7	6.6	6.4	6.2	5.9	5.6	5.2	4.8	4.3	5.6	4.7	3.7	3.5	2.1	1.4	0.8	0.4	0.4	0.2	0.1	0.0	0.0	74.6
-4	6.5	6.4	6.3	6.1	5.8	5.5	5.1	4.6	4.2	5.5	4.6	3.6	3.4	2.1	1.4	0.8	0.4	0.4	0.2	0.1	0.0	0.0	72.9
-6	6.3	6.2	6.1	5.9	5.6	5.3	4.9	4.5	4.1	5.3	4.4	3.5	3.3	2.0	1.4	0.7	0.4	0.4	0.2	0.1	0.0	0.0	70.4
-8	6.0	5.9	5.8	5.6	5.3	5.0	4.7	4.3	3.9	5.1	4.2	3.3	3.1	1.9	1.3	0.7	0.4	0.4	0.2	0.1	0.0	0.0	67.3
-10	5.7	5.6	5.5	5.3	5.1	4.8	4.4	4.1	3.7	4.8	4.0	3.1	2.9	1.8	1.3	0.7	0.4	0.4	0.2	0.1	0.0	0.0	63.6
-12	5.3	5.2	5.1	4.9	4.7	4.5	4.1	3.8	3.5	4.5	3.7	2.9	2.6	1.6	1.2	0.7	0.4	0.4	0.2	0.1	0.0	0.0	59.5
-14	4.9	4.9	4.7	4.6	4.4	4.1	3.8	3.5	3.2	4.2	3.4	2.6	2.4	1.5	1.1	0.6	0.4	0.4	0.2	0.1	0.0	0.0	54.9
-16	4.5	4.5	4.3	4.2	4.0	3.8	3.5	3.2	2.9	3.8	3.0	2.3	2.1	1.4	1.0	0.6	0.4	0.4	0.2	0.1	0.0	0.0	50.1
-18	6.0	5.9	5.7	5.5	5.3	5.0	4.6	4.2	3.8	4.9	3.9	3.0	2.7	1.8	1.4	0.8	0.5	0.6	0.2	0.1	0.0	0.0	65.9
-21	5.0	4.9	4.8	4.6	4.4	4.1	3.8	3.4	3.1	3.9	3.1	2.3	2.2	1.5	1.2	0.8	0.5	0.5	0.2	0.1	0.0	0.0	54.5
-24	4.0	3.9	3.8	3.7	3.5	3.2	3.0	2.7	2.4	3.0	2.4	1.8	1.8	1.2	1.1	0.7	0.5	0.5	0.2	0.1	0.0	0.0	43.4
-27	3.8	3.8	3.6	3.5	3.3	3.0	2.8	2.5	2.2	2.8	2.2	1.8	1.8	1.3	1.2	0.8	0.6	0.6	0.3	0.1	0.0	0.0	41.9
-31	2.4	2.3	2.2	2.1	2.0	1.9	1.7	1.6	1.4	1.9	1.5	1.3	1.4	1.0	1.0	0.7	0.5	0.6	0.3	0.1	0.0	0.0	27.8
-35	1.6	1.6	1.6	1.5	1.5	1.4	1.3	1.2	1.1	1.5	1.3	1.1	1.3	1.0	1.0	0.7	0.5	0.7	0.3	0.1	0.0	0.0	22.5
-40	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.7	1.0	0.9	0.8	0.9	0.8	0.8	0.6	0.5	0.6	0.3	0.1	0.0	0.0	15.0
-45	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.7	0.6	0.6	0.7	0.6	0.6	0.5	0.4	0.5	0.3	0.1	0.0	0.0	10.7
-50	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.9	0.8	0.8	0.9	0.8	0.9	0.8	0.6	0.9	0.4	0.2	0.0	0.0	14.1
-60	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.5	0.6	0.5	0.4	0.6	0.3	0.1	0.0	0.0	8.6
-70	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.4	0.2	0.1	0.0	4.9
-80	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.0	2.0
-90	158.6	156.6	153.1	147.8	141.1	132.9	123.5	113.4	102.9	134.2	110.4	87.5	84.5	55.8	43.9	27.6	18.3	20.9	9.7	3.5	0.5	0.0	1826.5

LUMEN TOTAL THIS PAGE = 1826.5



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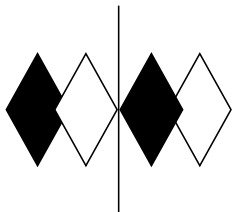
PAGE: 5 OF 7  
REVISED: 11/10/15

# LUMEN TABULATION - FIELD ONLY

## AVERAGE OF RIGHT AND LEFT SIDES

	0	2	4	6	8	10	12	14	16	18	21	24	27	31	35	40	45	50	60	70	80	90	TOTAL
90																							0.0
80																							0.0
70																							0.0
60																							0.0
50																							0.0
45																							0.0
40																							0.0
35																							0.0
31	2.5	2.5	2.4	2.3	2.2	2.0	1.9	1.7	1.5	1.9													21.0
27	4.1	4.0	3.9	3.8	3.6	3.3	3.0	2.7	2.4	3.0	2.4	1.9											38.2
24	4.3	4.2	4.1	3.9	3.7	3.5	3.2	2.9	2.6	3.3	2.6	1.9	1.9										42.0
21	5.2	5.2	5.1	4.9	4.7	4.4	4.0	3.7	3.3	4.2	3.3	2.5	2.3										52.7
18	6.2	6.1	6.0	5.8	5.5	5.2	4.9	4.5	4.0	5.2	4.1	3.1	2.9	1.9									65.3
16	4.7	4.6	4.5	4.3	4.2	3.9	3.7	3.4	3.0	4.0	3.2	2.4	2.3	1.4									49.5
14	5.1	5.0	4.9	4.7	4.5	4.3	4.0	3.6	3.3	4.3	3.5	2.7	2.5	1.6									54.1
12	5.5	5.4	5.3	5.1	4.9	4.6	4.2	3.9	3.6	4.7	3.8	3.0	2.8	1.7									58.3
10	5.8	5.7	5.6	5.4	5.2	4.9	4.5	4.1	3.8	5.0	4.1	3.2	3.0	1.8									62.1
8	6.1	6.0	5.9	5.7	5.4	5.1	4.8	4.4	4.0	5.2	4.3	3.4	3.2	1.9	1.3								66.7
6	6.4	6.3	6.1	5.9	5.7	5.3	5.0	4.5	4.1	5.4	4.5	3.5	3.3	2.0	1.4								69.5
4	6.5	6.5	6.3	6.1	5.8	5.5	5.1	4.7	4.3	5.6	4.6	3.7	3.5	2.1	1.4								71.7
2	6.7	6.6	6.4	6.2	5.9	5.6	5.2	4.8	4.3	5.7	4.7	3.7	3.5	2.2	1.5								73.1
0	6.7	6.7	6.5	6.3	6.0	5.7	5.3	4.8	4.4	5.7	4.7	3.8	3.6	2.2	1.5								73.8
-2	6.7	6.7	6.5	6.3	6.0	5.7	5.2	4.8	4.4	5.7	4.7	3.8	3.6	2.2	1.5								73.7
-4	6.7	6.6	6.4	6.2	5.9	5.6	5.2	4.8	4.3	5.6	4.7	3.7	3.5	2.1	1.4								72.7
-6	6.5	6.4	6.3	6.1	5.8	5.5	5.1	4.6	4.2	5.5	4.6	3.6	3.4	2.1	1.4								71.0
-8	6.3	6.2	6.1	5.9	5.6	5.3	4.9	4.5	4.1	5.3	4.4	3.5	3.3	2.0	1.4								68.6
-10	6.0	5.9	5.8	5.6	5.3	5.0	4.7	4.3	3.9	5.1	4.2	3.3	3.1	1.9									64.2
-12	5.7	5.6	5.5	5.3	5.1	4.8	4.4	4.1	3.7	4.8	4.0	3.1	2.9	1.8									60.6
-14	5.3	5.2	5.1	4.9	4.7	4.5	4.1	3.8	3.5	4.5	3.7	2.9	2.6	1.6									56.6
-16	4.9	4.9	4.7	4.6	4.4	4.1	3.8	3.5	3.2	4.2	3.4	2.6	2.4	1.5									52.2
-18	4.5	4.5	4.3	4.2	4.0	3.8	3.5	3.2	2.9	3.8	3.0	2.3	2.1	1.4									47.5
-21	6.0	5.9	5.7	5.5	5.3	5.0	4.6	4.2	3.8	4.9	3.9	3.0	2.7	1.8									62.2
-24	5.0	4.9	4.8	4.6	4.4	4.1	3.8	3.4	3.1	3.9	3.1	2.3	2.2										49.7
-27	4.0	3.9	3.8	3.7	3.5	3.2	3.0	2.7	2.4	3.0	2.4	1.8	1.8										39.1
-31	3.8	3.8	3.6	3.5	3.3	3.0	2.8	2.5	2.2	2.8	2.2												33.4
-35	2.4	2.3	2.2	2.1	2.0	1.9	1.7	1.6	1.4														17.6
-40																							0.0
-45																							0.0
-50																							0.0
-60																							0.0
-70																							0.0
-80																							0.0
-90																							0.0
	149.4	147.5	144.0	138.9	132.5	124.6	115.5	105.8	95.6	122.3	98.0	74.8	68.2	37.0	12.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1566.9

LUMEN TOTAL THIS PAGE = 1566.9



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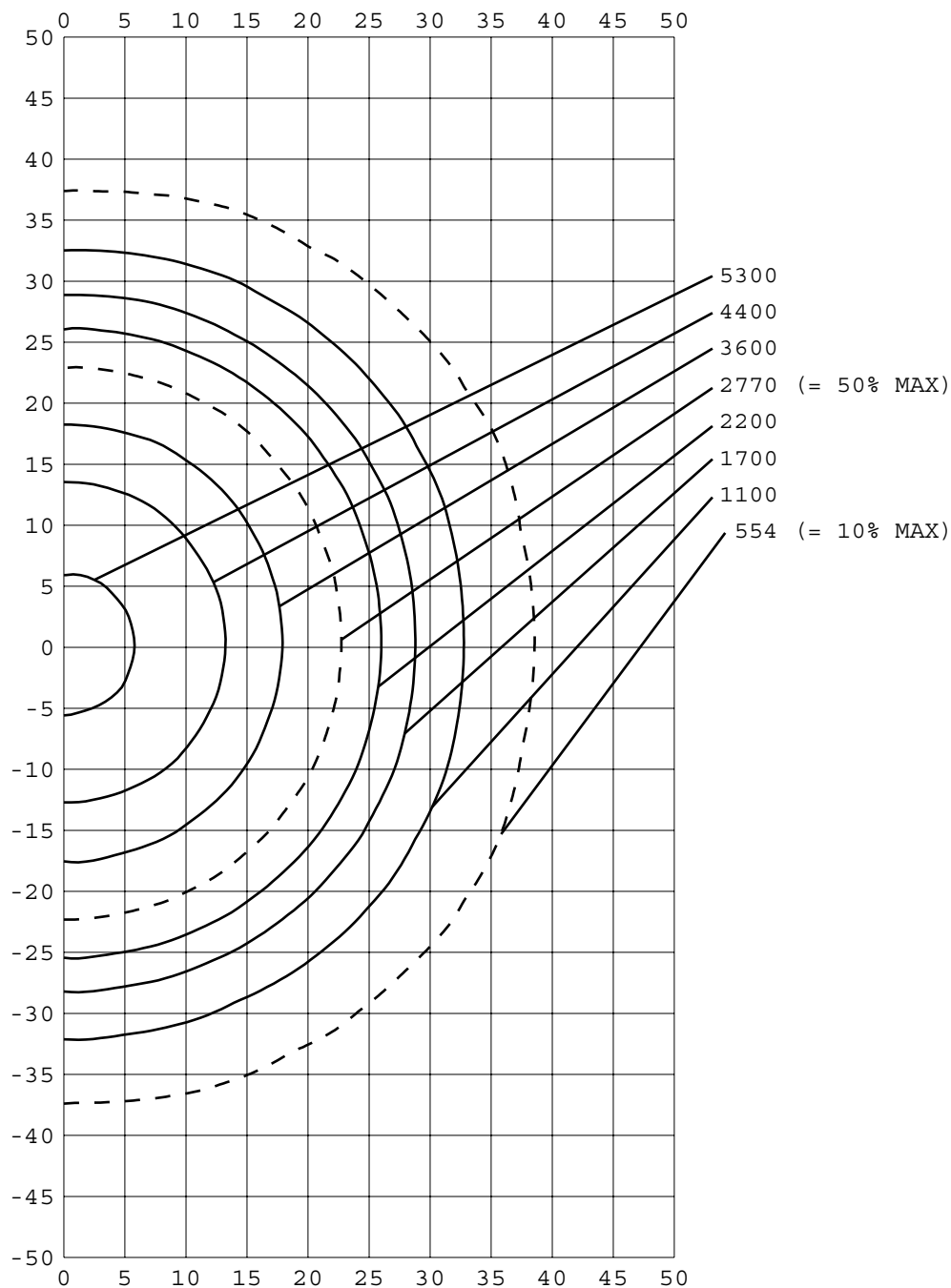
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PAGE: 6 OF 7  
REVISED: 11/10/15

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AVERAGE OF RIGHT AND LEFT SIDES





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