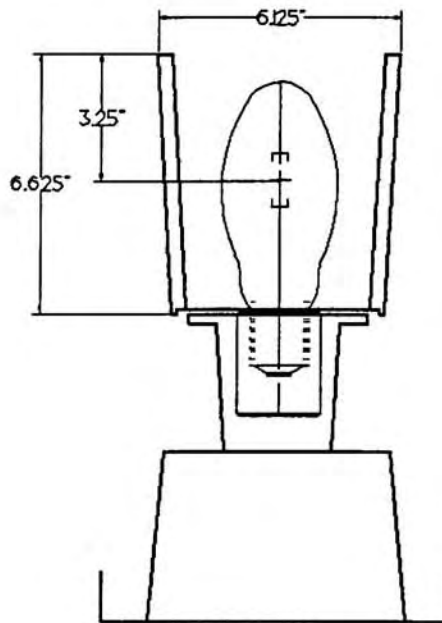




BALLABS CERTIFIED TEST REPORT NO.: 10724.0 DATE 06/23/00
PREPARED FOR: POLYMER PRODUCTS, LLC - STAMFORD, CONN
DESCRIPTION: 1/150W CLEAR ET23.5 HPS LAMP 6"DIA POST LIGHT REFRACTOR
L-3 TYPE III BOROSILICA GLASS REFRACTOR - OPEN TOP
MOUNTED ON CAST ALUMINUM FITTER - NO GLOBE ASSEMBLY
CATALOG NBR: 19-02-06000
LAMP TYPE : S55CX LU150/55 RATED LUMENS 16000. NBR. LAMPS:- 1



IES CUTOFF CLASSIFICATION: NON CUTOFF
IES ROADWAY CLASSIFICATION: TYPE IV -LONG
TESTED IN ACCORDANCE WITH CURRENT IES STANDARDS

BALLABS CERTIFIED TEST REPORT NO.: 10724.0 DATE 06/23/00
 PREPARED FOR: POLYMER PRODUCTS, LLC - STAMFORD, CONN
 DESCRIPTION: 1/150W CLEAR ET23.5 HPS LAMP 6"DIA POST LIGHT REFRACTOR
 L-3 TYPE III BOROSILICA GLASS REFRACTOR - OPEN TOP
 MOUNTED ON CAST ALUMINUM FITTER - NO GLOBE ASSEMBLY
 CATALOG NBR: 19-2-06000
 LAMP TYPE : S55CX LU150/55 RATED LUMENS 16000. NBR. LAMPS:- 1

CANDLEPOWER DISTRIBUTION

VERT	HORIZONTAL										
	0.	5.	15.	25.	35.	45.	55.	65.	75.	85.	90.
.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10.0	7.	4.	7.	5.	6.	7.	8.	9.	8.	7.	9.
15.0	67.	55.	55.	53.	62.	57.	77.	62.	58.	53.	50.
20.0	172.	169.	177.	185.	196.	196.	194.	188.	179.	164.	154.
25.0	235.	236.	230.	235.	240.	266.	253.	253.	232.	219.	215.
30.0	314.	306.	284.	287.	299.	372.	378.	334.	269.	265.	266.
35.0	390.	369.	346.	348.	369.	492.	572.	469.	319.	324.	351.
40.0	469.	422.	387.	416.	429.	561.	814.	731.	447.	391.	437.
45.0	627.	541.	485.	523.	559.	652.	1126.	1068.	672.	456.	575.
50.0	845.	740.	610.	689.	746.	868.	1575.	1455.	1132.	532.	733.
55.0	1119.	934.	756.	909.	945.	1107.	2029.	1878.	1574.	615.	885.
60.0	1328.	1171.	895.	1087.	1144.	1267.	2287.	2176.	1839.	699.	915.
62.5	1404.	1273.	950.	1150.	1234.	1350.	2424.	2295.	1938.	751.	906.
65.0	1485.	1337.	1000.	1224.	1291.	1408.	2510.	2374.	2049.	816.	894.
67.5	1543.	1404.	1012.	1260.	1338.	1461.	2601.	2422.	2141.	884.	882.
70.0	1574.	1446.	1039.	1305.	1396.	1502.	2697.	2505.	2245.	976.	872.
72.5	1620.	1504.	1088.	1372.	1456.	1560.	2790.	2570.	2340.	1074.	870.
75.0	1688.	1584.	1155.	1447.	1527.	1607.	2886.	2629.	2449.	1142.	870.
77.5	1729.	1627.	1197.	1488.	1573.	1671.	2953.	2663.	2543.	1200.	872.
80.0	1727.	1651.	1236.	1536.	1621.	1718.	2974.	2674.	2591.	1268.	880.
82.5	1713.	1666.	1275.	1567.	1656.	1753.	2987.	2676.	2652.	1324.	892.
85.0	1694.	1680.	1323.	1603.	1697.	1783.	2988.	2676.	2691.	1364.	899.
87.5	1674.	1684.	1382.	1643.	1736.	1815.	3011.	2705.	2733.	1408.	921.
90.0	1620.	1654.	1416.	1652.	1745.	1839.	2953.	2700.	2736.	1415.	924.
95.0	1517.	1597.	1479.	1723.	1798.	1876.	2895.	2712.	2790.	1413.	951.
105.0	1314.	1404.	1545.	1784.	1708.	1898.	2645.	2712.	2619.	1157.	982.
115.0	1052.	1144.	1330.	1458.	1338.	1590.	2133.	2270.	2012.	897.	969.
125.0	808.	845.	963.	1011.	973.	1142.	1440.	1520.	1367.	756.	872.
135.0	926.	929.	927.	939.	884.	944.	1075.	1048.	880.	772.	810.
145.0	1417.	1420.	1410.	1400.	1400.	1363.	1410.	1365.	1221.	1207.	1255.
155.0	1146.	1152.	1130.	1084.	1095.	1095.	1087.	1039.	908.	855.	861.
165.0	831.	829.	831.	849.	829.	843.	854.	812.	787.	724.	687.
175.0	568.	576.	575.	569.	566.	557.	558.	554.	551.	557.	555.
180.0	563.	556.	561.	555.	557.	554.	555.	556.	555.	556.	556.

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 L-3 TYPE III BOROSILICA GLASS REFRACTOR - OPEN TOP
 MOUNTED ON CAST ALUMINUM FITTER - NO GLOBE ASSEMBLY

CATALOG NBR: 19-2-06000

LAMP TYPE : S55CX LU150/55 RATED LUMENS 16000. NBR. LAMPS:- 1

CANDLEPOWER DISTRIBUTION

VERT	HORIZONTAL										
	90.	95.	105.	115.	125.	135.	145.	155.	165.	175.	180.
.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10.0	9.	8.	9.	12.	7.	7.	8.	10.	8.	7.	7.
15.0	50.	56.	53.	56.	51.	57.	59.	61.	67.	71.	59.
20.0	154.	152.	164.	166.	152.	147.	151.	155.	156.	170.	152.
25.0	215.	212.	211.	237.	234.	231.	219.	214.	211.	211.	203.
30.0	266.	274.	285.	315.	324.	350.	352.	336.	339.	342.	323.
35.0	351.	362.	383.	398.	399.	430.	423.	371.	352.	360.	344.
40.0	437.	500.	494.	532.	505.	532.	530.	438.	348.	352.	346.
45.0	575.	644.	651.	678.	646.	666.	673.	555.	373.	355.	345.
50.0	733.	837.	883.	902.	877.	898.	905.	806.	476.	422.	408.
55.0	885.	1035.	1113.	1126.	1087.	1143.	1161.	1072.	589.	510.	498.
60.0	915.	1197.	1293.	1253.	1281.	1282.	1355.	1299.	701.	593.	572.
62.5	906.	1276.	1324.	1332.	1359.	1338.	1422.	1382.	759.	620.	594.
65.0	894.	1323.	1381.	1396.	1462.	1408.	1499.	1451.	815.	650.	628.
67.5	882.	1361.	1410.	1421.	1526.	1454.	1525.	1497.	871.	677.	649.
70.0	872.	1426.	1454.	1491.	1596.	1495.	1558.	1553.	937.	704.	676.
72.5	870.	1498.	1507.	1539.	1664.	1568.	1654.	1612.	1011.	732.	704.
75.0	870.	1546.	1545.	1602.	1738.	1625.	1761.	1666.	1068.	760.	735.
77.5	872.	1596.	1586.	1659.	1797.	1675.	1805.	1720.	1139.	797.	774.
80.0	880.	1628.	1626.	1706.	1846.	1721.	1825.	1745.	1184.	804.	791.
82.5	892.	1662.	1647.	1754.	1890.	1768.	1870.	1789.	1232.	822.	811.
85.0	899.	1701.	1663.	1786.	1935.	1802.	1911.	1809.	1253.	834.	821.
87.5	921.	1722.	1685.	1831.	1957.	1835.	1913.	1845.	1267.	848.	845.
90.0	924.	1733.	1690.	1833.	1947.	1839.	1904.	1861.	1267.	849.	854.
95.0	951.	1765.	1728.	1864.	1969.	1886.	1956.	1901.	1262.	882.	882.
105.0	982.	1536.	1645.	1748.	1806.	1782.	1844.	1823.	1126.	892.	899.
115.0	969.	1155.	1354.	1413.	1453.	1477.	1531.	1500.	931.	851.	862.
125.0	872.	927.	1052.	1048.	1051.	1074.	1087.	1021.	781.	766.	773.
135.0	810.	835.	853.	894.	864.	890.	894.	814.	827.	873.	862.
145.0	1255.	1267.	1283.	1302.	1288.	1295.	1289.	1308.	1365.	1424.	1443.
155.0	861.	896.	931.	948.	937.	926.	962.	1001.	1024.	1048.	1070.
165.0	687.	643.	612.	612.	614.	632.	676.	708.	720.	720.	743.
175.0	555.	551.	544.	549.	545.	537.	545.	535.	532.	519.	515.
180.0	556.	555.	552.	555.	549.	549.	554.	554.	547.	548.	540.

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 L-3 TYPE III BOROSILICA GLASS REFRACTOR - OPEN TOP
 MOUNTED ON CAST ALUMINUM FITTER - NO GLOBE ASSEMBLY

CATALOG NBR: 19-2-06000
 LAMP TYPE : S55CX LU150/55 RATED LUMENS 16000. NBR. LAMPS:- 1

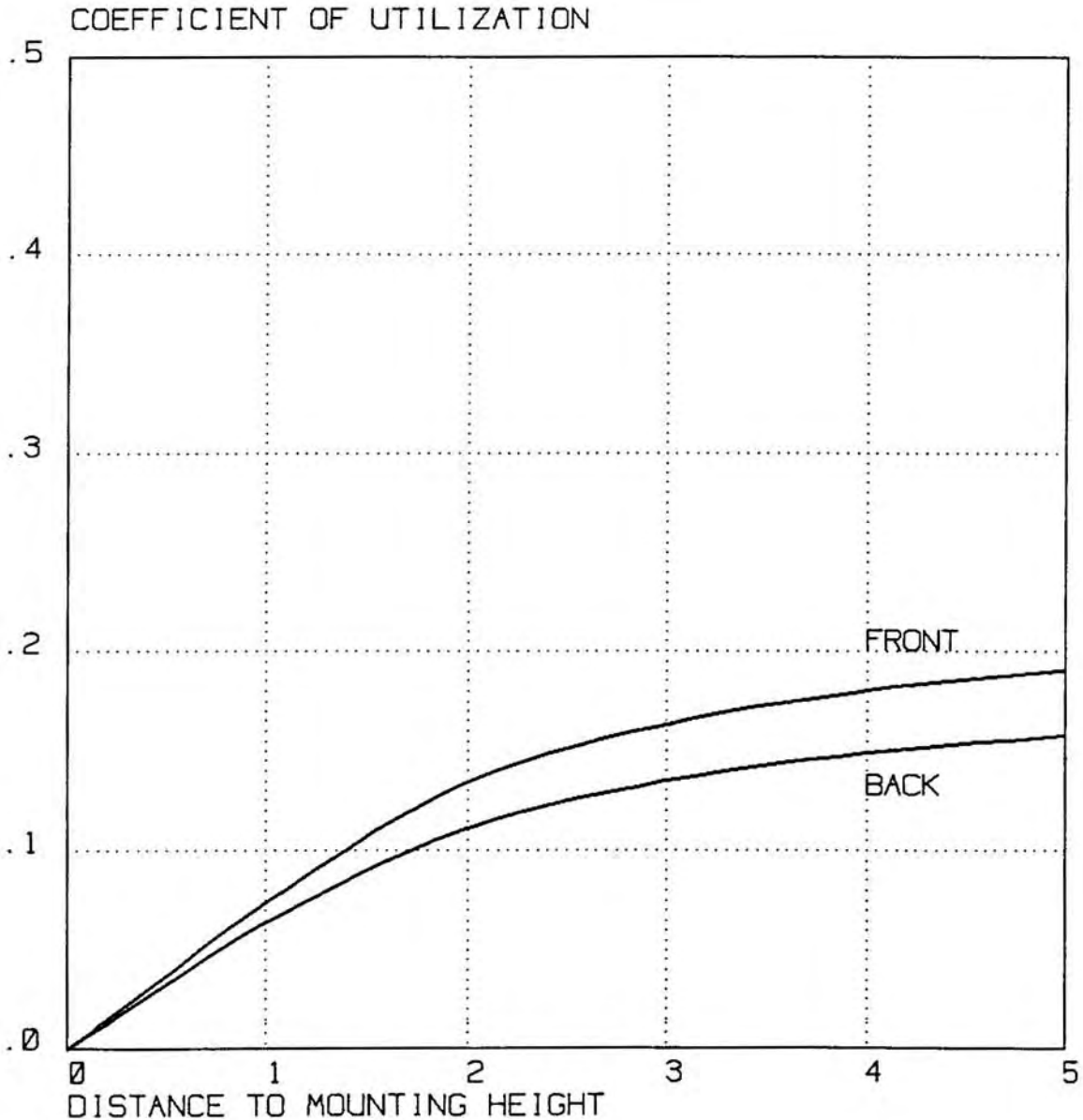
ZONAL LUMENS

VERT	HORIZONTAL								
	5.	15.	25.	35.	45.	55.	65.	75.	85.
5.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15.0	.9	.9	.8	1.0	.9	1.2	1.0	.9	.8
25.0	6.1	5.9	6.0	6.2	6.8	6.5	6.5	6.0	5.6
35.0	12.9	12.1	12.1	12.9	17.2	20.0	16.4	11.1	11.3
45.0	23.3	20.9	22.5	24.1	28.1	48.4	46.0	28.9	19.6
55.0	46.6	37.7	45.3	47.1	55.2	101.1	93.6	78.5	30.7
65.0	73.7	55.1	67.5	71.2	77.6	138.4	130.9	113.0	45.0
75.0	93.1	67.9	85.0	89.7	94.4	169.6	154.5	143.9	67.1
85.0	101.8	80.2	97.2	102.9	108.1	181.1	162.2	163.1	82.7
95.0	96.8	89.6	104.4	109.0	113.7	175.5	164.4	169.1	85.6
105.0	82.5	90.8	104.9	100.4	111.6	155.5	159.4	153.9	68.0
115.0	63.1	73.3	80.4	73.8	87.7	117.6	125.2	111.0	49.5
125.0	42.1	48.0	50.4	48.5	56.9	71.8	75.8	68.1	37.7
135.0	40.0	39.9	40.4	38.0	40.6	46.3	45.1	37.9	33.2
145.0	49.6	49.2	48.9	48.9	47.6	49.2	47.6	42.6	42.1
155.0	29.6	29.1	27.9	28.2	28.2	28.0	26.7	23.3	22.0
165.0	13.1	13.1	13.4	13.1	13.3	13.4	12.8	12.4	11.4
175.0	3.1	3.0	3.0	3.0	3.0	3.0	2.9	2.9	3.0

VERT	HORIZONTAL								
	95.	105.	115.	125.	135.	145.	155.	165.	175.
5.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15.0	.9	.8	.9	.8	.9	.9	1.0	1.1	1.1
25.0	5.5	5.4	6.1	6.0	5.9	5.6	5.5	5.4	5.4
35.0	12.6	13.4	13.9	13.9	15.0	14.8	12.9	12.3	12.6
45.0	27.7	28.0	29.2	27.8	28.7	29.0	23.9	16.0	15.3
55.0	51.6	55.5	56.1	54.2	57.0	57.9	53.4	29.4	25.4
65.0	73.0	76.2	77.0	80.6	77.6	82.7	80.0	44.9	35.8
75.0	90.9	90.8	94.2	102.1	95.5	103.5	97.9	62.8	44.7
85.0	103.1	100.8	108.3	117.3	109.2	115.8	109.7	76.0	50.6
95.0	107.0	104.7	113.0	119.4	114.3	118.6	115.2	76.5	53.5
105.0	90.3	96.7	102.7	106.1	104.7	108.4	107.1	66.2	52.4
115.0	63.7	74.7	77.9	80.1	81.4	84.4	82.7	51.3	46.9
125.0	46.2	52.4	52.2	52.4	53.5	54.2	50.9	38.9	38.2
135.0	35.9	36.7	38.5	37.2	38.3	38.5	35.0	35.6	37.6
145.0	44.2	44.8	45.4	45.0	45.2	45.0	45.6	47.6	49.7
155.0	23.0	23.9	24.4	24.1	23.8	24.7	25.7	26.3	26.9
165.0	10.1	9.6	9.6	9.7	10.0	10.6	11.1	11.3	11.3
175.0	2.9	2.9	2.9	2.9	2.8	2.9	2.8	2.8	2.8

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 CATALOG NBR: 19-2-06000
 LAMP TYPE : S55CX LU150/55 RATED LUMENS 16000. NBR. LAMPS:-

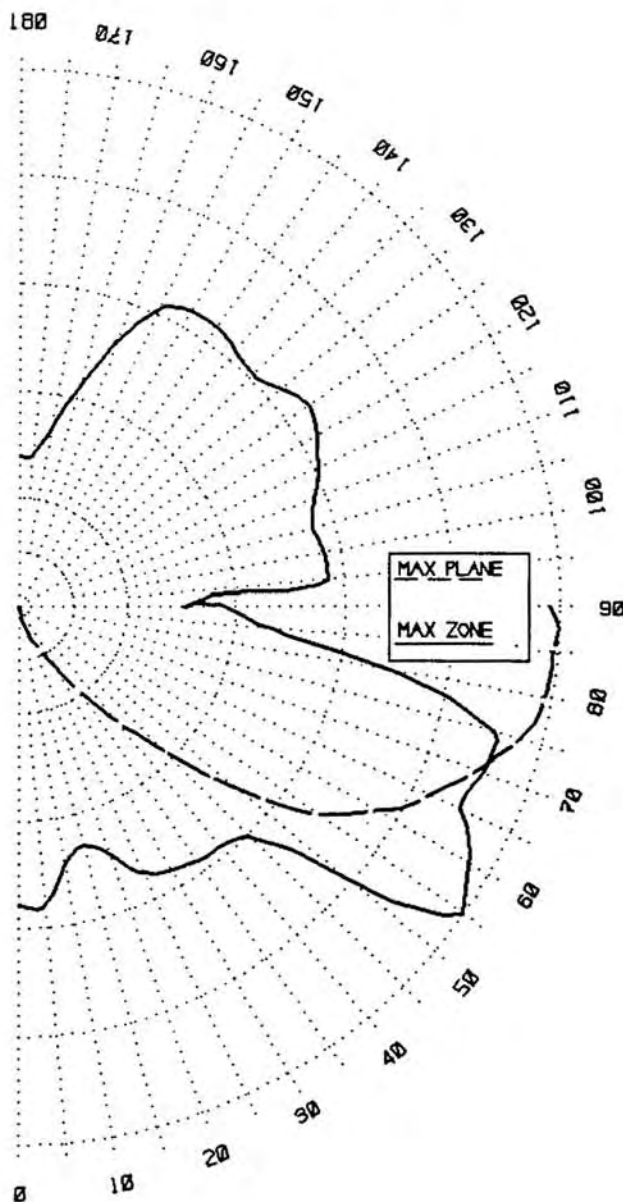
COEFFICIENTS OF UTILIZATION			EFFICIENCY		
RATIO	FRONT	BACK	BACK	LUMENS	%LAMP
0.5	.028	.027	DOWNWARD	3147.	19.7
1.0	.074	.064	UPWARD	3927.	24.5
2.0	.135	.111	FRONT		
3.0	.164	.135	DOWNWARD	3804.	23.8
4.0	.181	.149	UPWARD	4588.	28.7
5.0	.191	.158	TOTAL	15467.	96.7



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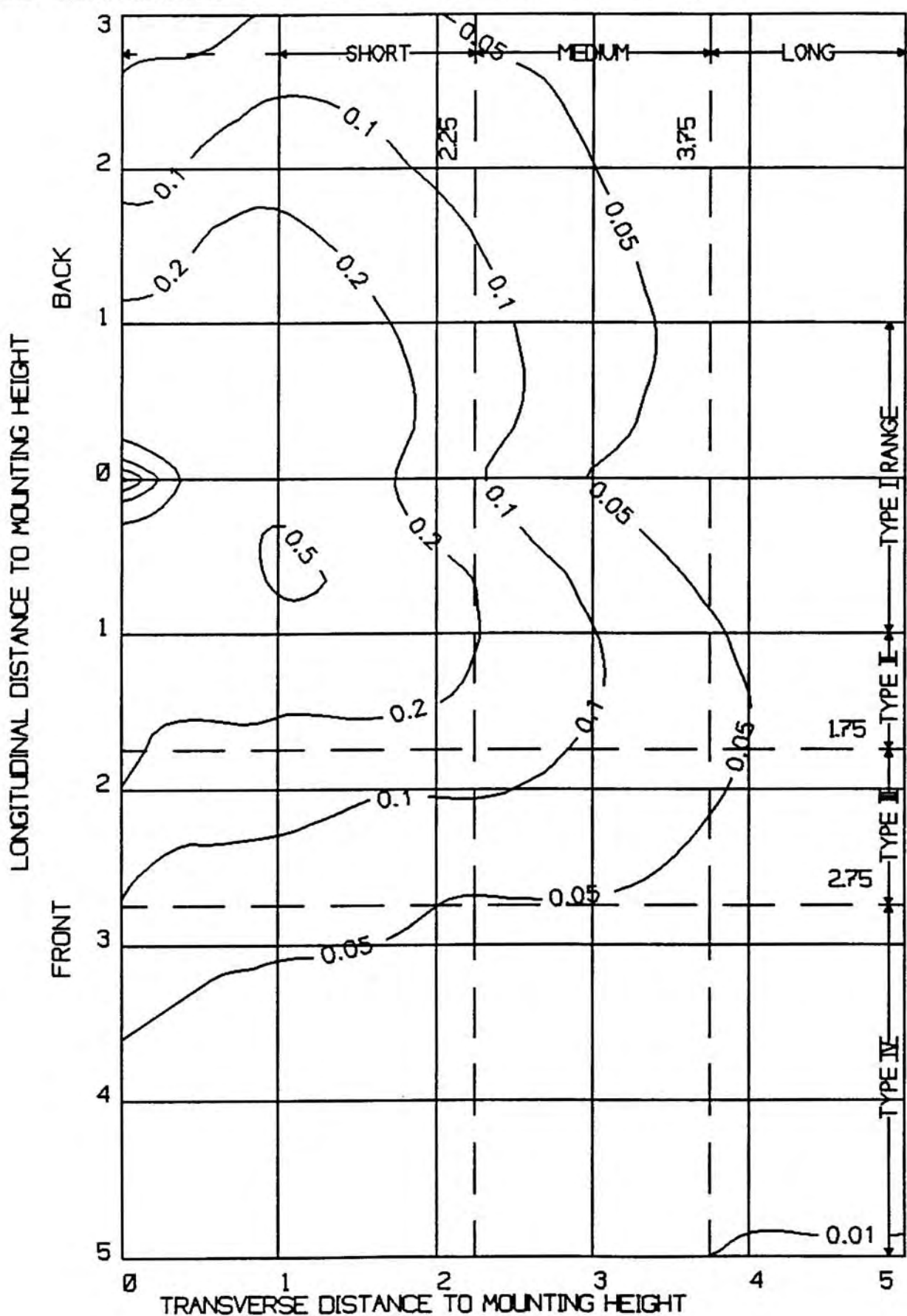
VALUE OF MAXIMUM BEAM CANDLEPOWER 3011.
 PLANE OF MAXIMUM BEAM CANDLEPOWER 55.
 ZONE OF MAXIMUM BEAM CANDLEPOWER 87.5

ANGLE	CANDLEPOWER IN MAX. PLANE
.0	0.
5.0	0.
10.0	8.
15.0	77.
20.0	194.
25.0	253.
30.0	378.
35.0	572.
40.0	814.
45.0	1126.
50.0	1575.
55.0	2029.
60.0	2287.
62.5	2424.
65.0	2510.
67.5	2601.
70.0	2697.
72.5	2790.
75.0	2886.
77.5	2953.
80.0	2974.
82.5	2987.
85.0	2988.
87.5	3011.
90.0	2953.



ANGLE	CANDLEPOWER IN MAX. ZONE
0	1674.
5	1684.
15	1382.
25	1643.
35	1736.
45	1815.
55	3011.
65	2705.
75	2733.
85	1408.
90	921.
95	1722.
105	1685.
115	1831.
125	1957.
135	1835.
145	1913.
155	1845.
165	1267.
175	848.
180	845.

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 ISO-FOOTCANDLES - 25.00 FOOT MOUNTING HEIGHT



TO CONVERT TO NEW MH MULTIPLY FC BY

MH	: XFC
15.	: 2.78
16.	: 2.44
17.	: 2.16
18.	: 1.93
19.	: 1.73
20.	: 1.56
21.	: 1.42
22.	: 1.29
23.	: 1.18
24.	: 1.09
25.	: 1.00
26.	: .92
27.	: .86
28.	: .80
29.	: .74
30.	: .69
31.	: .65
32.	: .61
33.	: .57
34.	: .54
35.	: .51