

Scaled data based on original data using
LM-46-04 Photometric Testing of Indoor Luminaires Using High Intensity Discharge or
Incandescent Filament Lamps (Reaffirmed 2012)

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: SHAPER

Report Number: 20104

Luminaire Tested: **697-WP-MH1/70**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: 20104
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 697-WP-MH1/70
Description: EXTERIOR WALL MOUNT LUMINAIRE WITH PEBBLE TONE SPECULAR REFLECTOR
AND CLEAR FLAT GLASS LENS
Light Source: ONE VENTURE 70 WATT MH LAMP

MH70W/U. LUMEN RATING = 5600 LMS.

Ballast/Driver: -

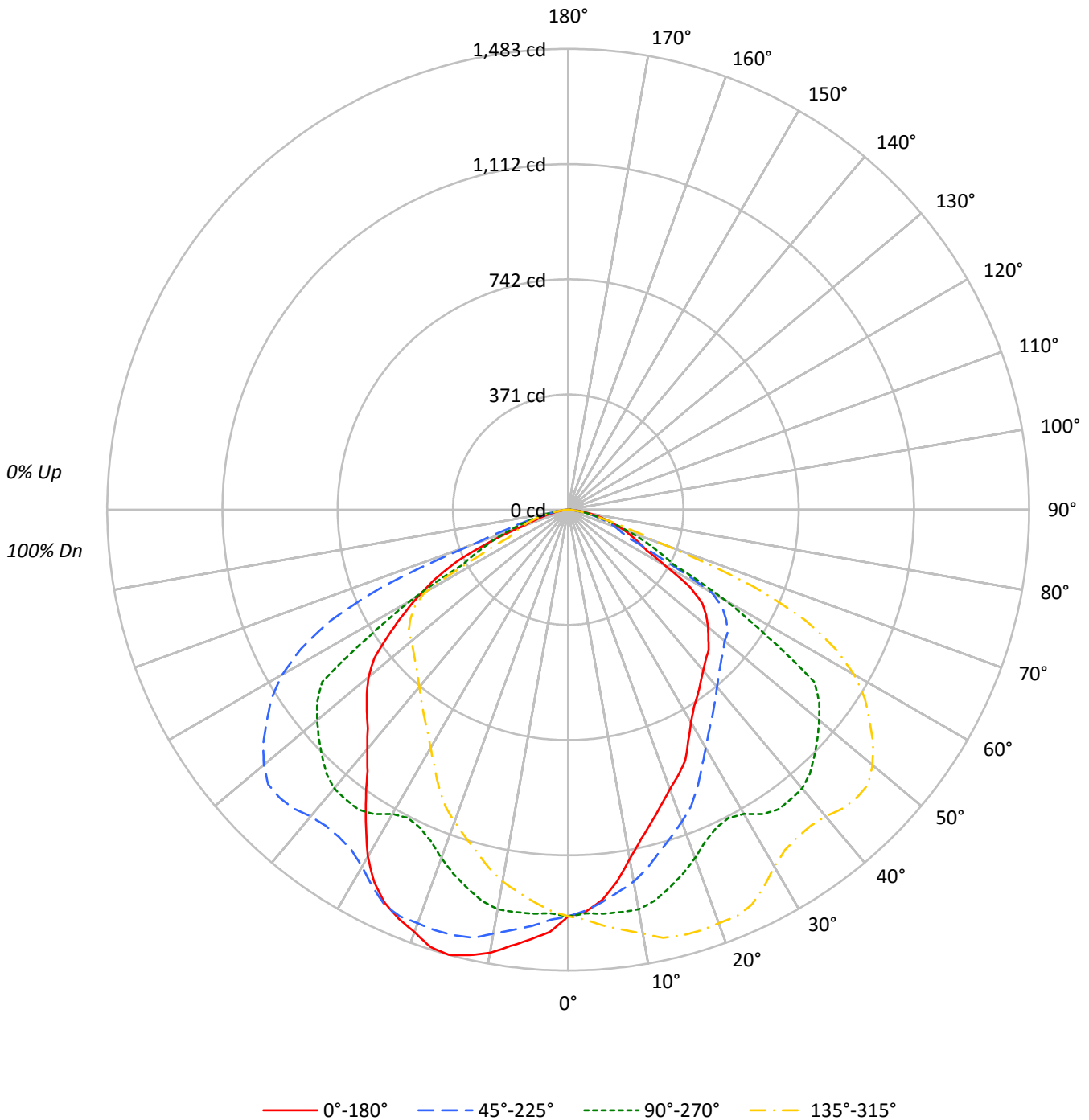
Summary

Lumens per Lamp: 5600 (1 lamp)
Luminaire Lumens: 3712.5 lumens
Efficiency: 66.3%
Efficacy: -
Spacing Criteria (0/90/45): 1.18 / 1.38 / 1.49
Luminous Opening: Rectangular (W 0.67' x L: 0.58' x H: 0')
CIE Type: Direct

Input Watts (W): 0
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

TEST NUMBER: 20104
CATALOG NUMBER: 697-WP-MH1/70

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	79	79	79	79	77	77	77	77	74	74	74	71	71	71	68	68	68	66
1	73	70	67	65	71	68	66	64	66	64	62	63	61	60	61	59	58	57
2	66	61	57	53	65	60	56	53	58	54	52	56	53	50	54	51	49	48
3	61	54	49	45	59	53	48	44	51	47	43	49	46	43	47	44	42	41
4	55	48	42	38	54	47	42	37	45	41	37	44	40	36	42	39	36	35
5	51	43	37	32	50	42	36	32	40	36	32	39	35	32	38	34	31	30
6	47	38	32	28	46	38	32	28	36	31	28	35	31	28	34	30	27	26
7	43	35	29	25	42	34	29	25	33	28	25	32	28	24	31	27	24	23
8	40	31	26	22	39	31	26	22	30	25	22	29	25	22	29	25	22	20
9	38	29	23	20	37	28	23	20	28	23	20	27	23	19	26	22	19	18
10	35	27	21	18	34	26	21	18	26	21	18	25	21	18	24	20	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	36247	36247	36247	36247
5°	35034	36277	38588	36277
10°	32087	36730	40730	36730
15°	29798	36106	42536	36106
20°	28198	35160	42627	35160
25°	27213	34499	42666	34499
30°	25252	36158	41218	36158
35°	24573	39820	38346	39820
40°	24414	42335	36350	42335
45°	25027	43865	35882	43865
50°	25308	45415	36124	45415
55°	25435	46660	34143	46660
60°	20065	32397	30790	32397
65°	16412	21111	25955	21111
70°	15379	16983	12707	16983
75°	13742	12950	8679	12950
80°	10879	8709	6253	8709
85°	5911	5689	5180	5689



TEST NUMBER: 20104
 CATALOG NUMBER: 697-WP-MH1/70

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	124.6	3.4	2.2
10°-20°	358.4	9.7	6.4
20°-30°	533.7	14.4	9.5
30°-40°	661.3	17.8	11.8
40°-50°	744.4	20.1	13.3
50°-60°	727.3	19.6	13.0
60°-70°	414.2	11.2	7.4
70°-80°	127.3	3.4	2.3
80°-90°	21.4	0.6	0.4
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-30°	1016.7	27.4	18.2
0°-40°	1678.0	45.2	30.0
0°-60°	3149.7	84.8	56.2
0°-90°	3712.5	100.0	66.3
90°-120°	0.0	0.0	0.0
90°-150°	0.0	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	3712.5	100.0	66.3

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1309	1309	1309	1309	1309	
5°	1260	1305	1388	1305	1260	116
15°	1039	1259	1483	1259	1039	293
25°	890	1129	1396	1129	890	406
35°	727	1178	1134	1178	727	456
45°	639	1120	916	1120	639	490
55°	527	966	707	966	527	453
65°	250	322	396	322	250	255
75°	128	121	81	121	128	135
85°	19	18	16	18	19	28
90°	0	0	0	0	0	



TEST NUMBER: 20104
 CATALOG NUMBER: 697-WP-MH1/70

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1308.6	1308.6	1308.6	1308.6	1308.6	1308.6	1308.6	1308.6	1308.6	1308.6	1308.6
2.5°	1294.9	1291.5	1291.5	1294.3	1300.1	1303.9	1321.1	1339.7	1359.7	1339.7	1321.1
5°	1260.0	1260.0	1266.7	1288.1	1304.7	1314.0	1344.5	1369.8	1387.8	1369.8	1344.5
7.5°	1205.6	1216.6	1240.5	1282.5	1305.9	1326.4	1363.6	1391.2	1416.0	1391.2	1363.6
10°	1140.8	1160.2	1215.2	1275.7	1305.9	1352.6	1385.0	1426.1	1448.1	1426.1	1385.0
12.5°	1085.0	1114.6	1180.0	1255.7	1288.0	1351.2	1411.2	1452.3	1468.1	1452.3	1411.2
15°	1039.1	1078.3	1138.8	1219.1	1259.1	1340.2	1418.0	1464.2	1483.3	1464.2	1418.0
17.5°	995.7	1047.3	1103.1	1177.4	1228.1	1323.1	1419.9	1469.5	1475.2	1469.5	1419.9
20°	956.6	1003.9	1068.7	1125.0	1192.8	1300.5	1416.0	1443.3	1446.1	1443.3	1416.0
22.5°	925.0	964.2	1032.9	1067.8	1154.3	1277.1	1416.0	1413.2	1424.7	1413.2	1416.0
25°	890.4	924.2	984.2	1008.1	1128.8	1262.5	1400.8	1396.0	1396.0	1396.0	1400.8
27.5°	836.9	885.6	931.8	962.8	1117.8	1253.8	1365.6	1380.2	1351.2	1380.2	1365.6
30°	789.5	841.7	884.5	953.8	1130.5	1258.5	1325.9	1353.5	1288.7	1353.5	1325.9
32.5°	752.9	788.1	843.1	964.2	1161.5	1274.3	1298.3	1296.3	1210.9	1296.3	1298.3
35°	726.7	746.2	808.7	964.8	1177.6	1303.9	1285.9	1226.2	1134.0	1226.2	1285.9
37.5°	699.4	710.4	775.7	955.2	1175.2	1332.1	1281.9	1142.8	1060.5	1142.8	1281.9
40°	675.2	686.2	744.8	940.0	1170.8	1347.3	1288.1	1069.3	1005.3	1069.3	1288.1
42.5°	654.6	656.0	717.2	912.6	1151.1	1347.8	1305.3	1007.6	954.6	1007.6	1305.3
45°	638.9	627.0	694.6	891.2	1119.8	1337.4	1311.5	951.8	916.0	951.8	1311.5
47.5°	611.2	597.4	675.2	869.8	1087.8	1313.5	1308.7	914.6	878.3	914.6	1308.7
50°	587.3	567.9	657.4	839.7	1053.9	1278.3	1277.7	879.4	838.3	879.4	1277.7
52.5°	559.7	541.1	647.0	807.3	1017.9	1229.5	1236.6	837.4	786.7	837.4	1236.6
55°	526.7	507.6	620.8	769.5	966.2	1169.0	1182.8	788.1	707.0	788.1	1182.8
57.5°	466.2	478.6	588.7	731.8	760.8	1101.7	1131.8	728.1	629.8	728.1	1131.8
60°	362.2	438.6	532.9	666.5	584.8	1006.2	1061.7	644.2	555.8	644.2	1061.7
62.5°	284.8	345.9	332.1	338.9	383.6	803.1	968.1	570.1	481.4	570.1	968.1
65°	250.4	237.2	211.0	222.8	322.1	554.9	841.7	485.3	396.0	485.3	841.7
67.5°	218.6	204.2	182.2	188.4	264.8	451.0	644.2	367.9	277.2	367.9	644.2
70°	189.9	180.8	160.3	158.0	209.7	344.5	318.3	196.6	156.9	196.6	318.3
72.5°	158.9	154.6	132.1	126.5	161.7	222.8	197.5	125.9	113.5	125.9	197.5
75°	128.4	125.9	103.9	97.7	121.0	139.4	123.1	89.3	81.1	89.3	123.1
77.5°	96.9	93.5	75.5	71.5	84.5	85.9	79.2	62.0	57.7	62.0	79.2
80°	68.2	62.0	50.1	51.0	54.6	53.0	48.7	39.7	39.2	39.7	48.7
82.5°	40.6	34.9	29.6	32.4	32.3	29.6	26.2	23.9	26.2	23.9	26.2
85°	18.6	17.7	17.7	18.6	17.9	14.4	14.4	14.4	16.3	14.4	14.4
87.5°	8.2	6.8	6.8	9.0	6.8	2.8	4.2	4.2	6.2	4.2	4.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: 20104
 CATALOG NUMBER: 697-WP-MH1/70

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1308.6	1308.6	1308.6	1308.6	1308.6	1308.6
2.5°	1303.9	1300.1	1294.3	1291.5	1291.5	1294.9
5°	1314.0	1304.7	1288.1	1266.7	1260.0	1260.0
7.5°	1326.4	1305.9	1282.5	1240.5	1216.6	1205.6
10°	1352.6	1305.9	1275.7	1215.2	1160.2	1140.8
12.5°	1351.2	1288.0	1255.7	1180.0	1114.6	1085.0
15°	1340.2	1259.1	1219.1	1138.8	1078.3	1039.1
17.5°	1323.1	1228.1	1177.4	1103.1	1047.3	995.7
20°	1300.5	1192.8	1125.0	1068.7	1003.9	956.6
22.5°	1277.1	1154.3	1067.8	1032.9	964.2	925.0
25°	1262.5	1128.8	1008.1	984.2	924.2	890.4
27.5°	1253.8	1117.8	962.8	931.8	885.6	836.9
30°	1258.5	1130.5	953.8	884.5	841.7	789.5
32.5°	1274.3	1161.5	964.2	843.1	788.1	752.9
35°	1303.9	1177.6	964.8	808.7	746.2	726.7
37.5°	1332.1	1175.2	955.2	775.7	710.4	699.4
40°	1347.3	1170.8	940.0	744.8	686.2	675.2
42.5°	1347.8	1151.1	912.6	717.2	656.0	654.6
45°	1337.4	1119.8	891.2	694.6	627.0	638.9
47.5°	1313.5	1087.8	869.8	675.2	597.4	611.2
50°	1278.3	1053.9	839.7	657.4	567.9	587.3
52.5°	1229.5	1017.9	807.3	647.0	541.1	559.7
55°	1169.0	966.2	769.5	620.8	507.6	526.7
57.5°	1101.7	760.8	731.8	588.7	478.6	466.2
60°	1006.2	584.8	666.5	532.9	438.6	362.2
62.5°	803.1	383.6	338.9	332.1	345.9	284.8
65°	554.9	322.1	222.8	211.0	237.2	250.4
67.5°	451.0	264.8	188.4	182.2	204.2	218.6
70°	344.5	209.7	158.0	160.3	180.8	189.9
72.5°	222.8	161.7	126.5	132.1	154.6	158.9
75°	139.4	121.0	97.7	103.9	125.9	128.4
77.5°	85.9	84.5	71.5	75.5	93.5	96.9
80°	53.0	54.6	51.0	50.1	62.0	68.2
82.5°	29.6	32.3	32.4	29.6	34.9	40.6
85°	14.4	17.9	18.6	17.7	17.7	18.6
87.5°	2.8	6.8	9.0	6.8	6.8	8.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)