Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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: 20057

Luminaire Tested: **687-12-MH1/100**

Issue Date: 3/3/2020

Report Generated By E9808136 / USAU2WHP6039969

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Scaled Data Report

Test Information

Test Method:	LM-46-04
Report Number:	20057
Test Lab:	
Issue Date:	3/3/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	SHAPER
Catalog Number:	687-12-MH1/100
Description:	INTERIOR WALL MOUNT LUMINAIRE WITH WHITE INTERIOR AND NO LENS
Light Source:	ONE VENTURE 100 WATT MH LAMP
	MH100W.U. LUMEN RATING = 8100 LMS.
Ballast/Driver:	-

Summary

Lumens per Lamp:	8100 (1 lamp)
Luminaire Lumens:	5434.4 lumens
Efficiency:	67.1%
Efficacy:	-
N/A	
Luminous Opening:	Point Source (0' x 0' x 0')
CIE Type:	Indirect
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

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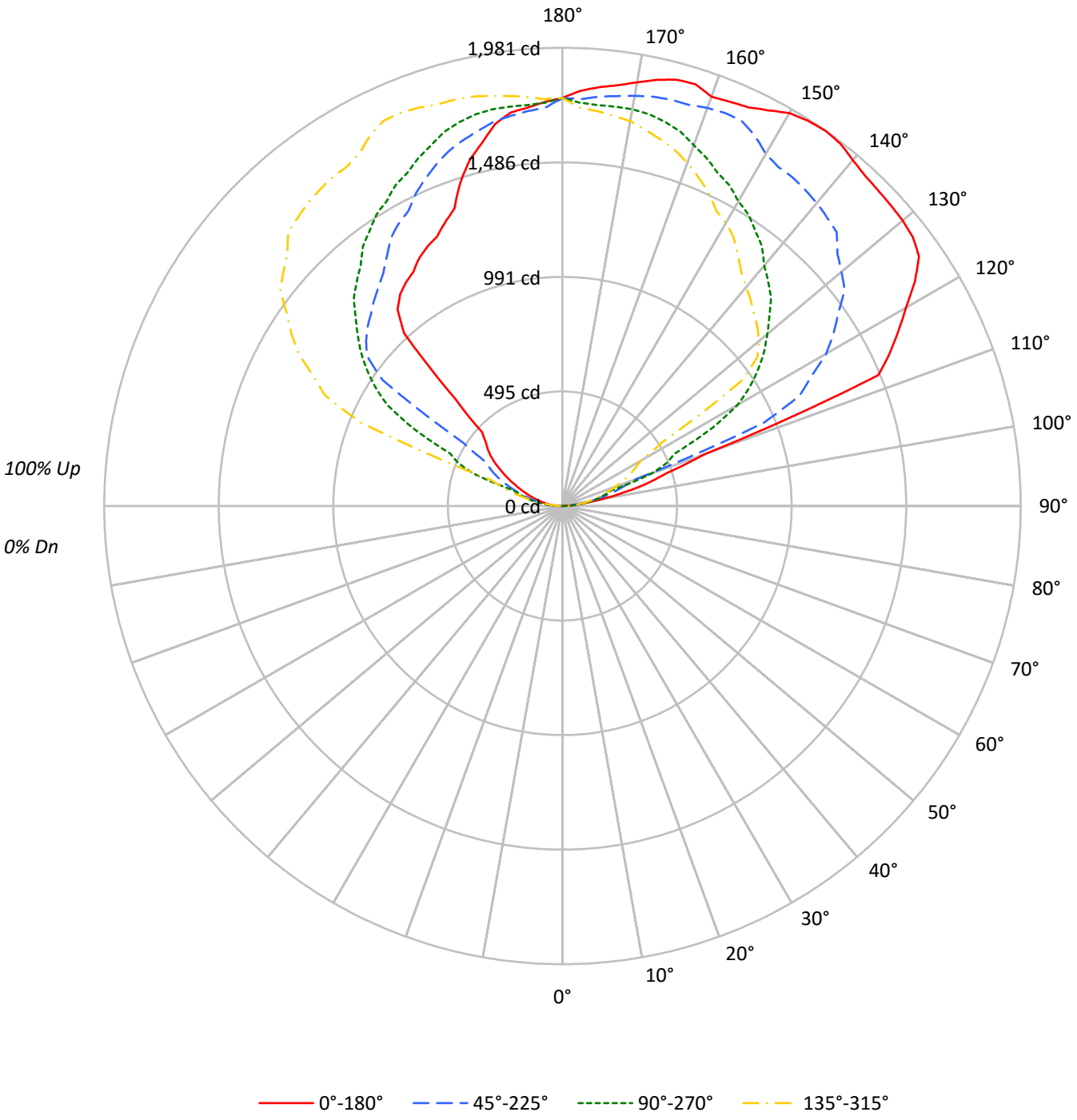
Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	64	64	64	64	55	55	55	55	37	37	37	21	21	21	7	7	7	0
1	58	55	53	51	50	47	45	44	32	31	30	19	18	18	6	6	6	0
2	53	48	45	41	45	41	38	36	28	27	25	16	15	15	5	5	5	0
3	48	42	38	34	41	36	33	30	25	23	21	14	13	12	5	4	4	0
4	44	37	33	29	37	32	28	25	22	20	18	13	11	10	4	4	3	0
5	40	33	28	24	34	28	24	21	20	17	15	11	10	9	4	3	3	0
6	37	29	24	21	31	25	21	18	17	15	13	10	9	8	3	3	3	0
7	34	26	21	18	29	23	19	16	16	13	11	9	8	7	3	3	2	0
8	31	24	19	16	27	20	16	14	14	12	10	8	7	6	3	2	2	0
9	29	21	17	14	25	18	15	12	13	10	8	7	6	5	2	2	2	0
10	27	19	15	12	23	17	13	11	12	9	7	7	5	4	2	2	1	0

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
95°				
100°				
105°				
110°				
115°				
120°				
125°				
130°				
135°				
140°				
145°				
150°				
155°				
160°				
165°				
170°				
175°				

Luminaire represents a point source (luminous area is zero).
No luminance values can be calculated.

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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	0.0	0.0	0.0
10°-20°	0.0	0.0	0.0
20°-30°	0.0	0.0	0.0
30°-40°	0.0	0.0	0.0
40°-50°	0.0	0.0	0.0
50°-60°	0.0	0.0	0.0
60°-70°	0.0	0.0	0.0
70°-80°	0.0	0.0	0.0
80°-90°	0.0	0.0	0.0
90°-100°	61.8	1.1	0.8
100°-110°	249.3	4.6	3.1
110°-120°	729.2	13.4	9.0
120°-130°	976.5	18.0	12.1
130°-140°	1050.0	19.3	13.0
140°-150°	960.1	17.7	11.9
150°-160°	752.1	13.8	9.3
160°-170°	487.7	9.0	6.0
170°-180°	167.6	3.1	2.1
0°-30°	0.0	0.0	0.0
0°-40°	0.0	0.0	0.0
0°-60°	0.0	0.0	0.0
0°-90°	0.0	0.0	0.0
90°-120°	1040.3	19.1	12.8
90°-150°	4026.9	74.1	49.7
90°-180°	5434.0	100.0	67.1
0°-180°	5434.4	100.0	67.1

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
90°	0	0	0	0	0	
95°	40	68	41	68	40	64
105°	384	190	124	190	384	406
115°	1561	534	237	534	1561	1449
125°	1882	1034	379	1034	1882	1661
135°	1929	1275	652	1275	1929	1496
145°	1981	1452	1180	1452	1981	1238
155°	1902	1588	1284	1588	1902	886
165°	1908	1718	1548	1718	1908	538
175°	1817	1740	1728	1740	1817	175
180°	1764	1764	1764	1764	1764	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	*0.0*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	*6.5*	8.7	10.6	15.2	34.3	44.0	33.9	27.7	22.9	27.7	33.9
95°	*39.9*	39.2	40.4	47.6	68.4	75.1	58.2	48.1	41.1	48.1	58.2
97.5°	*101.5*	96.9	79.1	81.6	101.6	106.8	84.4	70.5	59.9	70.5	84.4
100°	*178.0*	170.8	124.4	118.6	133.0	138.1	111.6	93.8	80.4	93.8	111.6
102.5°	*273.8*	255.5	172.0	154.0	162.1	165.5	141.0	116.9	101.0	116.9	141.0
105°	*383.5*	357.7	224.2	189.6	189.7	195.6	173.2	144.3	123.9	144.3	173.2
107.5°	*468.6*	452.3	271.4	218.4	219.9	254.3	206.6	172.0	148.7	172.0	206.6
110°	*650.7*	1238.7	332.5	242.0	409.3	673.1	244.9	204.2	176.8	204.2	244.9
112.5°	*1477.1*	1366.2	943.3	266.1	488.6	801.1	282.4	236.7	205.0	236.7	282.4
115°	*1560.6*	1447.0	1132.4	345.9	534.2	857.4	320.7	271.4	237.2	271.4	320.7
117.5°	*1636.8*	1559.4	1211.5	878.1	729.8	933.2	353.6	308.4	271.4	308.4	353.6
120°	*1714.3*	1659.7	1316.2	949.0	874.7	971.9	390.0	346.4	306.5	346.4	390.0
122.5°	*1806.0*	1746.1	1389.5	983.2	961.1	1018.3	506.2	383.0	344.3	383.0	506.2
125°	*1881.7*	1787.7	1455.4	1044.8	1034.2	1080.6	948.6	408.7	379.4	408.7	948.6
127.5°	*1908.7*	1800.7	1538.2	1124.2	1099.4	1146.3	1063.1	436.9	407.5	436.9	1063.1
130°	*1920.0*	1812.0	1574.0	1173.5	1155.2	1188.7	1108.3	489.3	433.5	489.3	1108.3
132.5°	*1924.6*	1825.9	1612.3	1250.5	1213.1	1239.9	1143.4	835.7	471.0	835.7	1143.4
135°	*1929.4*	1854.1	1675.6	1318.6	1274.8	1286.3	1171.1	1142.2	652.4	1142.2	1171.1
137.5°	*1936.3*	1884.1	1692.7	1349.6	1316.2	1329.6	1205.3	1199.2	1013.0	1199.2	1205.3
140°	*1952.2*	1900.5	1710.2	1402.5	1356.7	1385.0	1236.3	1240.4	1108.8	1240.4	1236.3
142.5°	*1973.9*	1913.0	1723.2	1476.6	1416.0	1417.7	1270.9	1264.4	1152.3	1264.4	1270.9
145°	*1981.1*	*1920.5*	*1734.3*	*1538.2*	*1452.4*	*1444.1*	*1321.9*	*1282.0*	*1180.0*	*1282.0*	*1321.9*
147.5°	*1974.6*	1902.9	1737.4	1572.8	1495.3	1469.4	1376.8	1316.6	1200.0	1316.6	1376.8
150°	*1961.1*	1887.8	1757.4	1615.7	1520.9	1506.0	1413.1	1330.8	1238.0	1330.8	1413.1
152.5°	*1928.2*	1879.3	1803.6	1658.5	1563.1	1535.8	1439.6	1347.2	1264.4	1347.2	1439.6
155°	*1901.7*	1871.2	1835.3	1684.5	1588.4	1571.2	1494.7	1378.9	1284.4	1378.9	1494.7
157.5°	*1891.8*	1869.5	1838.9	1712.6	1627.7	1616.9	1537.5	1409.5	1326.3	1409.5	1537.5
160°	*1882.9*	1885.8	1831.2	1741.5	1660.1	1638.5	1578.1	1462.4	1367.2	1462.4	1578.1
162.5°	*1911.8*	1891.8	1818.9	1770.8	1696.5	1675.1	1614.5	1521.8	1467.0	1521.8	1614.5
165°	*1908.2*	1865.4	1817.3	1783.1	1718.3	1702.5	1640.4	1585.1	1548.1	1585.1	1640.4
167.5°	*1887.0*	1851.2	1812.9	1784.3	1734.3	1704.4	1663.8	1628.7	1607.5	1628.7	1663.8
170°	*1859.4*	1834.8	1800.7	1784.8	1741.7	1715.5	1688.6	1683.7	1676.3	1683.7	1688.6
172.5°	*1834.8*	1832.4	1787.7	1782.6	1741.1	1721.5	1702.0	1720.3	1715.5	1720.3	1702.0
175°	*1817.3*	1811.3	1775.4	1776.1	1739.9	1726.8	1713.8	1735.5	1728.5	1735.5	1713.8
177.5°	*1797.3*	1793.7	1760.7	1768.4	1744.9	1736.7	1723.2	1747.3	1748.5	1747.3	1723.2
180°	*1763.9*	1763.9	1763.9	1763.9	1763.9	1763.9	1763.9	1763.9	1763.9	1763.9	1763.9

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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	44.0	34.3	15.2	10.6	8.7	6.5
95°	75.1	68.4	47.6	40.4	39.2	39.9
97.5°	106.8	101.6	81.6	79.1	96.9	101.5
100°	138.1	133.0	118.6	124.4	170.8	178.0
102.5°	165.5	162.1	154.0	172.0	255.5	273.8
105°	195.6	189.7	189.6	224.2	357.7	383.5
107.5°	254.3	219.9	218.4	271.4	452.3	468.6
110°	673.1	409.3	242.0	332.5	1238.7	650.7
112.5°	801.1	488.6	266.1	943.3	1366.2	1477.1
115°	857.4	534.2	345.9	1132.4	1447.0	1560.6
117.5°	933.2	729.8	878.1	1211.5	1559.4	1636.8
120°	971.9	874.7	949.0	1316.2	1659.7	1714.3
122.5°	1018.3	961.1	983.2	1389.5	1746.1	1806.0
125°	1080.6	1034.2	1044.8	1455.4	1787.7	1881.7
127.5°	1146.3	1099.4	1124.2	1538.2	1800.7	1908.7
130°	1188.7	1155.2	1173.5	1574.0	1812.0	1920.0
132.5°	1239.9	1213.1	1250.5	1612.3	1825.9	1924.6
135°	1286.3	1274.8	1318.6	1675.6	1854.1	1929.4
137.5°	1329.6	1316.2	1349.6	1692.7	1884.1	1936.3
140°	1385.0	1356.7	1402.5	1710.2	1900.5	1952.2
142.5°	1417.7	1416.0	1476.6	1723.2	1913.0	1973.9
145°	*1444.1*	*1452.4*	*1538.2*	*1734.3*	*1920.5*	*1981.1*
147.5°	1469.4	1495.3	1572.8	1737.4	1902.9	1974.6
150°	1506.0	1520.9	1615.7	1757.4	1887.8	1961.1
152.5°	1535.8	1563.1	1658.5	1803.6	1879.3	1928.2
155°	1571.2	1588.4	1684.5	1835.3	1871.2	1901.7
157.5°	1616.9	1627.7	1712.6	1838.9	1869.5	1891.8
160°	1638.5	1660.1	1741.5	1831.2	1885.8	1882.9
162.5°	1675.1	1696.5	1770.8	1818.9	1891.8	1911.8
165°	1702.5	1718.3	1783.1	1817.3	1865.4	1908.2
167.5°	1704.4	1734.3	1784.3	1812.9	1851.2	1887.0
170°	1715.5	1741.7	1784.8	1800.7	1834.8	1859.4
172.5°	1721.5	1741.1	1782.6	1787.7	1832.4	1834.8
175°	1726.8	1739.9	1776.1	1775.4	1811.3	1817.3
177.5°	1736.7	1744.9	1768.4	1760.7	1793.7	1797.3
180°	1763.9	1763.9	1763.9	1763.9	1763.9	1763.9

(END OF REPORT)