

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: H26074_150MP

Luminaire Tested: **MPGC-HE-175**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: H26074_150MP
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MPGC-HE-175
Description: FAILSAFE SURFACE MOUNT
Light Source: 150 WATT PULSE-START CLEAR UNIVERSAL BURN
14000 LAMP LUMENS
Ballast/Driver: -

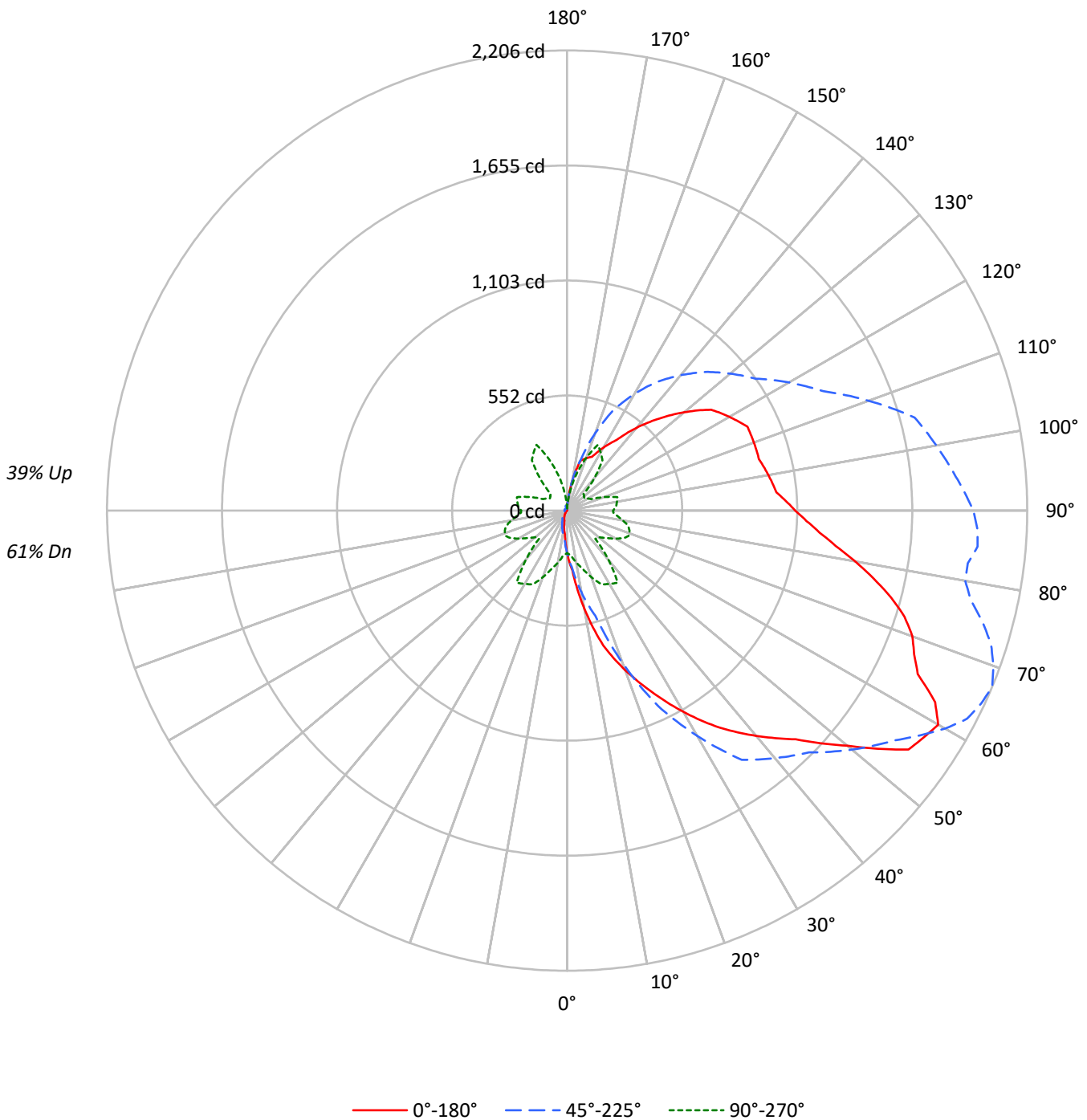
Summary

Lumens per Lamp: 14000 (1 lamp)
Luminaire Lumens: 7432.4 lumens
Efficiency: 53.1%
Efficacy: 40.2 lumens/watt
Spacing Criteria (0/90/45): 3.79 / 1.82 / 3.68
Luminous Opening: (L: 0' x W: 0' x H: 0.1'
CIE Type: Semi-Direct

Input Watts (W): 185
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): 1.2
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	
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	58	58	58	58	55	55	55	55	48	48	48	41	41	41	35	35	35	33
1	50	47	43	40	47	43	40	38	37	35	33	32	30	28	26	25	24	21
2	44	39	34	30	41	36	32	28	31	27	25	26	23	21	21	19	18	15
3	40	33	28	24	37	31	26	22	26	22	19	22	19	16	18	15	13	11
4	36	29	23	19	33	26	22	18	22	19	15	19	16	13	15	13	11	9
5	33	25	20	16	30	23	18	15	20	16	13	16	13	11	13	11	9	7
6	30	22	17	13	27	20	16	12	17	13	11	15	11	9	12	9	7	6
7	27	20	15	11	25	18	14	10	16	12	9	13	10	8	11	8	6	5
8	25	18	13	10	23	16	12	9	14	10	8	12	9	6	10	7	5	4
9	23	16	11	8	22	15	11	8	13	9	7	11	8	6	9	6	5	3
10	22	15	10	7	20	14	10	7	12	8	6	10	7	5	8	6	4	3

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	Luminous shape not found,		
5°	reference photometric report, or contact		
10°	the photometric lab for calculations.		
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	21.7	0.3	0.2	0°	204	204	204	204	204	
10°-20°	95.1	1.3	0.7	5°	288	277	216	139	117	33
20°-30°	225.7	3.0	1.6	15°	669	522	289	90	52	183
30°-40°	388.7	5.2	2.8	25°	958	1035	390	54	31	446
40°-50°	561.0	7.5	4.0	35°	1269	1459	422	38	15	793
50°-60°	750.4	10.1	5.4	45°	1550	1640	192	28	8	1225
60°-70°	865.9	11.7	6.2	55°	1997	1920	228	18	4	1752
70°-80°	852.3	11.5	6.1	65°	1855	2190	307	12	4	1872
80°-90°	798.1	10.7	5.7	75°	1608	2061	305	12	5	1689
90°-100°	716.8	9.6	5.1	85°	1215	1975	234	12	5	1032
100°-110°	627.9	8.4	4.5	90°	1093	1948	220	13	5	601
110°-120°	515.0	6.9	3.7	95°	1007	1870	236	13	5	829
120°-130°	392.0	5.3	2.8	105°	952	1724	249	13	5	1022
130°-140°	278.6	3.7	2.0	115°	953	1354	130	12	5	919
140°-150°	187.1	2.5	1.3	125°	843	1102	101	11	4	732
150°-160°	108.5	1.5	0.8	135°	624	940	111	11	3	485
160°-170°	40.5	0.5	0.3	145°	413	754	294	10	2	272
170°-180°	4.7	0.1	0.0	155°	285	536	348	8	2	142
0°-30°	342.6	4.6	2.4	165°	248	254	190	25	1	59
0°-40°	731.3	9.8	5.2	175°	50	50	39	11	1	8
0°-60°	2042.7	27.5	14.6	180°	10	10	10	10	10	
0°-90°	4559.0	61.3	32.6							
90°-120°	1859.6	25.0	13.3							
90°-150°	2717.3	36.6	19.4							
90°-180°	2871.0	38.6	20.5							
0°-180°	7432.4	100.0	53.1							



TEST NUMBER: H26074_150MP
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	203.8	203.8	203.8	203.8	203.8	203.8	203.8	203.8	203.8	203.8	203.8
5°	288.2	285.1	284.1	283.1	281.0	276.9	270.7	260.4	246.0	227.5	216.2
15°	669.1	649.6	636.2	614.6	573.4	521.9	489.0	436.5	394.3	330.4	289.3
25°	958.4	947.1	988.2	1126.2	1081.9	1034.6	996.5	786.5	653.7	507.5	390.1
35°	1269.3	1248.7	1264.1	1323.8	1507.1	1458.7	1336.2	1175.6	893.5	586.8	422.1
45°	1550.3	1537.9	1544.1	1563.7	1715.0	1639.9	1442.2	1243.5	1104.6	496.2	191.5
50°	1753.1	1740.7	1730.4	1762.4	1950.7	1782.9	1571.9	1378.4	1197.2	472.5	197.6
55°	1997.1	1984.7	1895.1	1893.1	2073.2	1919.9	1732.5	1489.6	1241.5	535.3	228.5
60°	2053.7	2056.8	1947.6	1965.1	2148.4	2090.7	1857.1	1628.5	1311.5	579.6	268.7
62.5°	1988.8	1995.0	1914.7	1929.1	2118.5	2161.8	1907.5	1699.6	1342.4	598.1	288.2
65°	1855.0	1865.3	1826.2	1874.6	2042.4	2189.6	1938.4	1753.1	1383.5	613.5	306.8
67.5°	1800.4	1787.1	1720.1	1774.7	1959.0	2206.0	1961.0	1779.9	1424.7	611.5	318.1
70°	1761.3	1753.1	1683.1	1665.6	1844.7	2174.1	1985.7	1792.2	1443.2	596.0	318.1
72.5°	1696.5	1699.6	1651.2	1622.4	1723.2	2130.9	2001.2	1777.8	1426.8	573.4	312.9
75°	1607.9	1626.5	1604.9	1586.3	1625.4	2060.9	2014.6	1768.5	1419.6	550.7	304.7
77.5°	1505.0	1540.0	1548.2	1551.3	1570.9	1981.6	2012.5	1746.9	1391.8	522.9	290.3
80°	1401.0	1451.5	1487.5	1528.7	1539.0	1937.4	2012.5	1718.1	1329.0	497.2	270.7
82.5°	1299.1	1359.9	1428.8	1527.6	1533.8	1937.4	1991.9	1701.6	1290.9	464.3	251.2
85°	1214.7	1273.4	1382.5	1543.1	1543.1	1975.4	1964.1	1657.4	1248.7	433.4	233.7
87.5°	1148.8	1195.1	1349.6	1549.3	1530.7	1968.2	1882.8	1582.2	1206.5	397.4	221.3
90°	1093.2	1129.3	1321.8	1529.7	1517.4	1947.6	1795.3	1485.4	1166.3	367.5	220.3
95°	1006.8	1037.6	1242.5	1482.4	1497.8	1870.4	1670.7	1288.8	1073.7	353.1	235.7
105°	952.2	999.6	1162.2	1323.8	1386.6	1724.3	1490.6	1114.9	969.7	406.6	249.1
115°	953.2	1031.5	1142.6	1192.1	1266.2	1353.7	1180.7	983.1	734.0	246.0	129.7
125°	843.1	914.1	999.6	1015.0	1169.4	1102.5	936.8	785.4	581.6	244.0	100.9
135°	623.8	676.3	743.2	762.8	994.4	939.9	679.4	566.2	464.3	385.0	111.2
145°	412.8	416.9	451.9	499.3	788.5	753.5	675.3	550.7	481.8	460.1	294.4
155°	285.1	286.2	320.1	543.5	547.6	536.3	494.1	462.2	430.3	385.0	347.9
165°	248.1	237.8	228.5	239.9	253.2	254.3	247.1	244.0	237.8	200.7	190.4
175°	50.4	53.5	52.5	51.5	50.4	50.4	52.5	51.5	46.3	41.2	39.1
180°	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	203.8	203.8	203.8	203.8	203.8	203.8	203.8	203.8	203.8	203.8
5°	204.9	184.3	163.7	149.3	139.0	129.7	121.5	119.4	118.4	117.4
15°	249.1	191.5	156.5	129.7	89.6	64.9	57.6	53.5	52.5	51.5
25°	337.6	194.6	105.0	76.2	53.5	39.1	34.0	31.9	30.9	30.9
35°	184.3	119.4	91.6	64.9	38.1	26.8	20.6	17.5	16.5	15.4
45°	171.9	122.5	100.9	56.6	27.8	15.4	11.3	9.3	8.2	8.2
50°	170.9	119.4	91.6	45.3	21.6	12.4	8.2	6.2	6.2	5.1
55°	161.6	107.1	74.1	36.0	17.5	9.3	6.2	4.1	4.1	4.1
60°	151.3	91.6	55.6	29.9	14.4	7.2	4.1	4.1	4.1	4.1
62.5°	153.4	84.4	48.4	26.8	13.4	6.2	5.1	4.1	4.1	4.1
65°	157.5	77.2	42.2	23.7	12.4	6.2	5.1	4.1	4.1	4.1
67.5°	163.7	72.1	38.1	21.6	12.4	6.2	5.1	4.1	4.1	4.1
70°	162.6	67.9	36.0	20.6	12.4	7.2	5.1	5.1	4.1	4.1
72.5°	158.5	63.8	34.0	20.6	12.4	7.2	5.1	5.1	5.1	5.1
75°	151.3	60.7	32.9	20.6	12.4	7.2	5.1	5.1	5.1	5.1
77.5°	141.0	57.6	31.9	20.6	12.4	7.2	6.2	5.1	5.1	5.1
80°	126.6	54.6	31.9	20.6	12.4	7.2	6.2	5.1	5.1	5.1
82.5°	112.2	52.5	31.9	20.6	12.4	7.2	6.2	5.1	5.1	5.1
85°	100.9	51.5	31.9	20.6	12.4	8.2	6.2	5.1	5.1	5.1
87.5°	96.8	50.4	30.9	20.6	12.4	8.2	6.2	5.1	5.1	5.1
90°	97.8	50.4	30.9	20.6	13.4	8.2	6.2	6.2	6.2	5.1
95°	102.9	49.4	30.9	20.6	13.4	8.2	6.2	6.2	6.2	5.1
105°	142.1	50.4	30.9	20.6	13.4	7.2	6.2	5.1	5.1	5.1
115°	78.2	50.4	30.9	19.6	12.4	7.2	5.1	5.1	5.1	5.1
125°	74.1	46.3	31.9	18.5	11.3	6.2	5.1	4.1	4.1	4.1
135°	78.2	43.2	34.0	20.6	11.3	5.1	4.1	3.1	3.1	3.1
145°	122.5	50.4	25.7	17.5	10.3	4.1	3.1	2.1	2.1	2.1
155°	257.4	125.6	39.1	16.5	8.2	4.1	2.1	2.1	2.1	2.1
165°	165.7	120.4	86.5	56.6	24.7	7.2	2.1	1.0	1.0	1.0
175°	36.0	30.9	24.7	17.5	11.3	6.2	3.1	1.0	1.0	1.0
180°	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3

(END OF REPORT)