

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:

Luminaire Tested: **HUD-175M**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number:
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: HUD-175M
Description:
Light Source: MH175/U/MED
Ballast/Driver: -

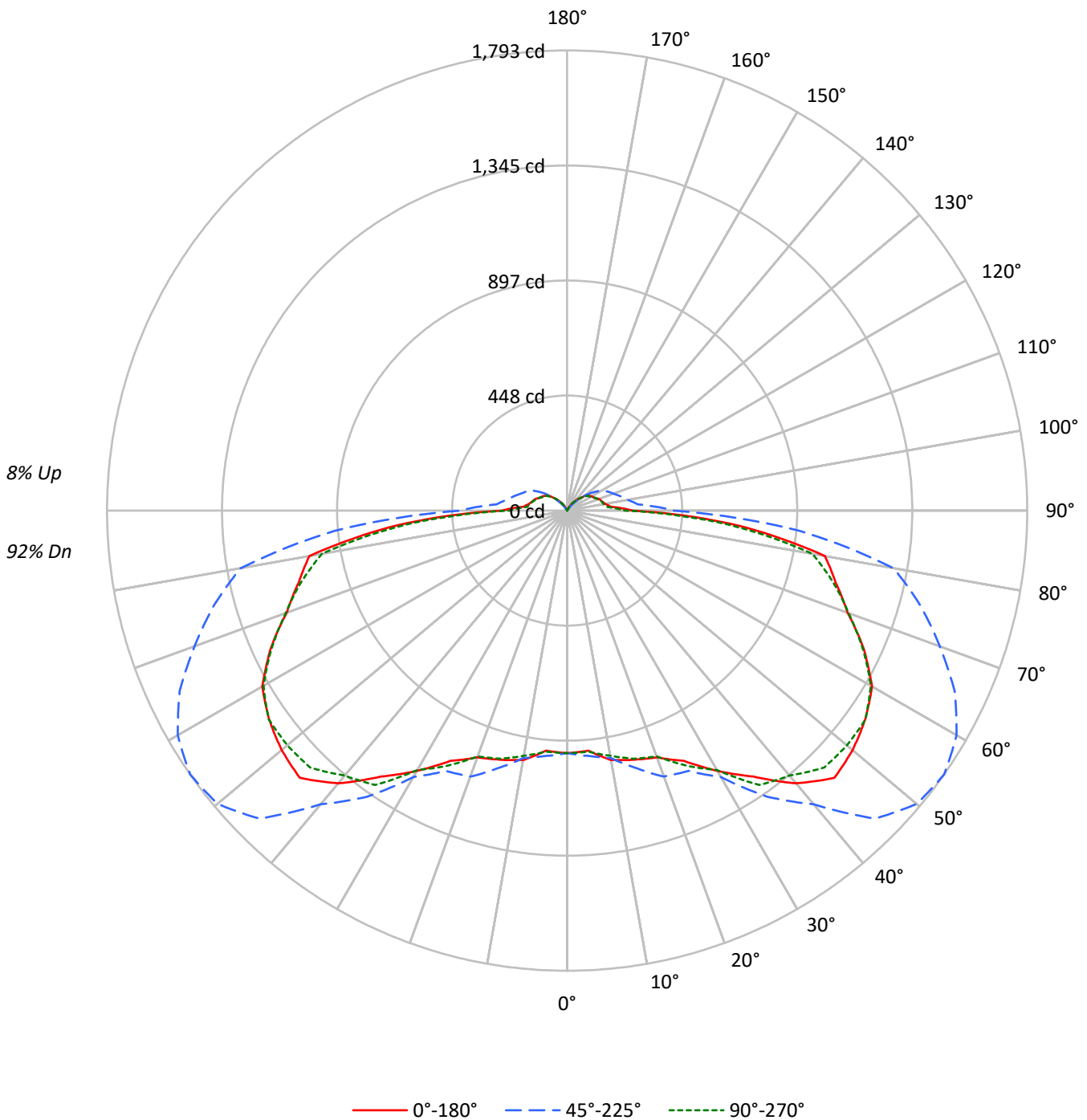
Summary

Lumens per Lamp: 14000 (1 lamp)
Luminaire Lumens: 8874.9 lumens
Efficiency: 63.4%
Efficacy: 50.7 lumens/watt
Spacing Criteria (0/90/45): 2.12 / 2.08 / 2.36
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 1' x H: 0.75')
CIE Type: Direct

Input Watts (W): 175
Input Voltage (V): NR
Input Current (A_{in}): 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	
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	74	74	74	74	72	72	72	72	67	67	67	63	63	63	60	60	60	58
1	64	60	56	52	62	58	54	51	54	51	48	50	48	46	47	45	43	41
2	57	49	44	39	54	48	42	38	44	40	36	41	38	34	39	36	33	31
3	50	42	35	30	48	40	34	29	38	32	28	35	31	27	32	29	26	24
4	45	36	29	24	43	35	28	23	32	27	22	30	25	22	28	24	21	19
5	41	31	25	20	39	30	24	19	28	23	18	26	22	18	25	20	17	15
6	38	28	21	16	36	27	21	16	25	20	15	23	19	15	22	18	14	13
7	35	25	18	14	33	24	18	14	22	17	13	21	16	13	20	15	12	11
8	32	22	16	12	31	22	16	12	20	15	11	19	14	11	18	14	11	9
9	30	20	14	10	28	20	14	10	18	13	10	17	13	10	16	12	9	8
10	28	18	13	9	27	18	13	9	17	12	9	16	12	8	15	11	8	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10172	10172	10172
5°	9521	9492	9562
10°	9528	9015	9364
15°	9325	9016	9288
20°	9205	9116	9169
25°	9468	8892	9644
30°	10157	9243	10122
35°	10899	10262	11244
40°	11961	11107	11625
45°	12813	12536	12317
50°	12839	13151	12583
55°	12848	13380	12858
60°	12847	13294	12791
65°	12450	12958	12411
70°	11959	12423	12000
75°	11856	11944	11735
80°	12035	11407	11445
85°	8618	8564	8167



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	91.6	1.0	0.7	0°	945	945	945	945	945	
10°-20°	290.4	3.3	2.1	5°	939	954	960	942	943	91
20°-30°	515.9	5.8	3.7	15°	1005	1034	1039	1021	1001	285
30°-40°	832.1	9.4	5.9	25°	1076	1094	1119	1113	1096	505
40°-50°	1204.8	13.6	8.6	35°	1265	1317	1361	1326	1305	801
50°-60°	1450.0	16.3	10.4	45°	1473	1586	1697	1564	1416	1121
60°-70°	1487.6	16.8	10.6	55°	1418	1690	1793	1609	1419	1269
70°-80°	1388.4	15.6	9.9	65°	1275	1569	1666	1509	1271	1261
80°-90°	860.4	9.7	6.1	75°	1083	1445	1424	1354	1072	1150
90°-100°	264.0	3.0	1.9	85°	668	837	910	840	633	613
100°-110°	187.5	2.1	1.3	90°	255	369	414	312	225	185
110°-120°	141.7	1.6	1.0	95°	170	230	277	209	158	148
120°-130°	95.4	1.1	0.7	105°	140	188	215	170	138	149
130°-140°	48.3	0.5	0.3	115°	117	146	175	132	119	118
140°-150°	15.7	0.2	0.1	125°	101	106	124	98	100	90
150°-160°	1.1	0.0	0.0	135°	67	58	59	59	66	53
160°-170°	0.0	0.0	0.0	145°	34	25	9	27	32	22
170°-180°	0.0	0.0	0.0	155°	2	0	0	0	0	3
0°-30°	897.9	10.1	6.4	165°	0	0	0	0	0	0
0°-40°	1730.0	19.5	12.4	175°	0	0	0	0	0	0
0°-60°	4384.7	49.4	31.3	180°	0	0	0	0	0	
0°-90°	8121.1	91.5	58.0							
90°-120°	593.2	6.7	4.2							
90°-150°	752.6	8.5	5.4							
90°-180°	754.0	8.5	5.4							
0°-180°	8874.9	100.0	63.4							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	945	945	945	945	945
5°	939	954	960	942	943
10°	987	973	979	987	970
15°	1005	1034	1039	1021	1001
20°	1023	1059	1103	1044	1019
25°	1076	1094	1119	1113	1096
30°	1171	1188	1199	1180	1167
35°	1265	1317	1361	1326	1305
40°	1387	1479	1494	1471	1348
45°	1473	1586	1697	1564	1416
50°	1452	1685	1778	1567	1423
55°	1418	1690	1793	1609	1419
60°	1372	1680	1752	1572	1366
65°	1275	1569	1666	1509	1271
70°	1163	1475	1545	1402	1167
75°	1083	1445	1424	1354	1072
80°	1020	1293	1291	1241	970
85°	668	837	910	840	633
90°	255	369	414	312	225
95°	170	230	277	209	158
100°	151	201	239	186	145
105°	140	188	215	170	138
110°	132	165	192	149	128
115°	117	146	175	132	119
120°	111	125	156	115	105
125°	101	106	124	98	100
130°	88	80	92	78	84
135°	67	58	59	59	66
140°	50	41	34	45	50
145°	34	25	9	27	32
150°	17	9	0	8	14
155°	2	0	0	0	0
160°	2	0	0	0	0
165°	0	0	0	0	0
170°	0	0	0	0	0
175°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)