

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: HALO

Report Number: P328477

Luminaire Tested: **L815MED20WW940MB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P328477
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-290-14)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: L815MED20WW940MB
Description: Medium, 2000lm, WW, 4000K, black finish
Light Source: (1) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1861.0 lumens
Efficiency: N/A
Efficacy: 75.3 lumens/watt
Spacing Criteria (0/90/45): 0.44 / 0.77 / 0.63
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

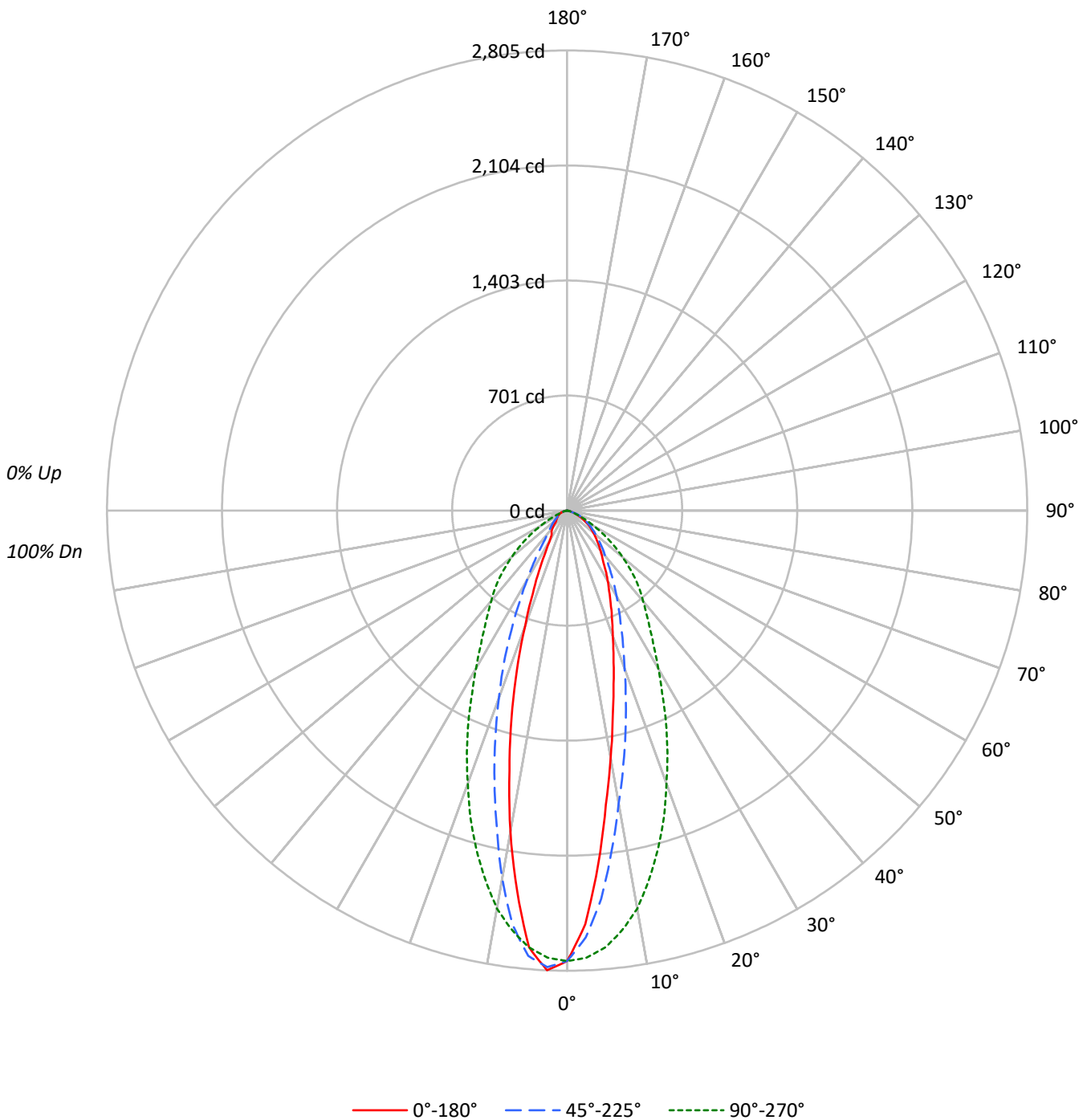
Input Watts (W): 24.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
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	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91					91			
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	86	84	82					82			
3	99	92	86	81	97	90	85	80	87	83	79	85	81	78	83	79	77	75					75			
4	93	85	78	73	91	83	77	73	81	76	72	79	75	71	77	73	70	68					68			
5	88	78	72	67	86	77	71	66	75	70	66	74	69	65	72	68	65	63					63			
6	83	73	66	61	81	72	66	61	71	65	61	69	64	60	68	63	60	58					58			
7	79	68	61	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54					54			
8	75	64	57	53	73	63	57	53	62	57	53	61	56	52	60	56	52	51					51			
9	71	60	54	50	70	60	54	49	59	53	49	58	53	49	57	52	49	47					47			
10	68	57	51	47	66	57	51	46	56	50	46	55	50	46	54	49	46	45					45			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	338658	338658	338658
5°	268162	330888	330789
10°	191242	308449	249457
15°	139509	272901	167078
20°	106611	232294	98499
25°	85414	193816	55214
30°	70302	158080	30123
35°	57671	132523	25041
40°	50463	116061	22285
45°	44795	102185	17165
50°	39760	84528	16368
55°	35569	66277	16107
60°	29850	46600	15887
65°	23378	30237	15760
70°	16950	14750	14426
75°	11628	9531	13296
80°	5540	6819	11720
85°	0	1274	9907



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.9	12.2
10°-20°	445.6	23.9
20°-30°	403.1	21.7
30°-40°	304.7	16.4
40°-50°	223.4	12.0
50°-60°	147.1	7.9
60°-70°	79.9	4.3
70°-80°	25.5	1.4
80°-90°	3.8	0.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1076.5	57.8
0°-40°	1381.3	74.2
0°-60°	1751.8	94.1
0°-90°	1861.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1861.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2746	2746	2746	2746	2746	
5°	2166	2376	2672	2725	2672	187
15°	1092	1376	2137	1710	1308	308
25°	628	775	1424	803	406	291
35°	383	466	880	290	166	245
45°	257	286	586	141	98	199
55°	165	179	308	79	75	147
65°	80	101	104	49	54	81
75°	24	16	20	24	28	26
85°	0	0	1	5	7	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	2745.6	2745.6	2745.6	2745.6	2745.6	2745.6	2745.6	2745.6	2745.6
2.5°	2524.5	2559.3	2603.7	2669.8	2728.2	2774.3	2785.6	2798.7	2804.8
5°	2165.8	2223.3	2375.6	2544.5	2672.4	2733.4	2724.7	2700.3	2671.6
7.5°	1808.0	1870.7	2087.5	2384.3	2578.4	2637.6	2546.2	2406.9	2339.0
10°	1526.9	1609.6	1810.7	2183.2	2462.7	2501.0	2279.0	2044.8	1991.7
12.5°	1282.3	1365.0	1582.6	1969.1	2304.2	2309.4	1981.3	1724.5	1624.4
15°	1092.5	1165.6	1376.3	1761.0	2137.1	2088.3	1709.7	1411.1	1308.4
17.5°	938.4	987.2	1186.5	1549.5	1962.1	1869.0	1457.2	1134.3	1018.5
20°	812.2	854.0	1022.8	1365.8	1769.7	1647.9	1213.5	868.8	750.4
22.5°	714.7	745.2	891.4	1196.1	1596.5	1451.1	1007.2	645.9	547.5
25°	627.6	656.4	774.7	1044.6	1424.1	1279.6	802.6	466.6	405.7
27.5°	556.3	579.8	685.1	920.1	1254.4	1124.7	630.2	337.8	282.0
30°	493.6	511.0	602.4	793.9	1109.9	984.5	490.1	246.4	211.5
32.5°	438.7	450.1	531.0	692.1	983.7	866.2	379.5	202.8	175.0
35°	383.0	398.7	465.7	606.7	880.1	763.4	289.9	175.8	166.3
37.5°	348.2	356.9	410.0	531.0	793.0	660.7	222.8	157.6	154.9
40°	313.4	320.3	361.3	464.0	720.8	561.5	184.5	141.0	138.4
42.5°	285.5	289.9	323.0	411.7	654.6	459.6	160.2	126.2	118.4
45°	256.8	260.3	286.4	363.9	585.8	372.6	141.0	113.2	98.4
47.5°	231.6	234.2	254.2	325.6	513.6	297.7	124.5	99.2	90.5
50°	207.2	208.9	228.1	291.6	440.5	235.0	107.1	87.9	85.3
52.5°	185.4	187.2	202.0	263.8	373.4	187.2	91.4	78.3	81.0
55°	165.4	162.8	179.3	238.5	308.2	144.5	79.2	71.4	74.9
57.5°	142.8	141.9	157.6	215.0	245.5	110.6	70.5	65.3	69.6
60°	121.0	121.0	137.5	190.6	188.9	87.9	62.7	60.9	64.4
62.5°	101.8	101.0	118.4	167.1	145.4	69.6	55.7	56.6	59.2
65°	80.1	84.4	101.0	134.9	103.6	56.6	48.7	50.5	54.0
67.5°	62.7	67.9	82.7	91.4	69.6	45.3	42.7	44.4	47.9
70°	47.0	53.1	61.8	50.5	40.9	35.7	36.6	38.3	40.0
72.5°	34.8	40.0	33.1	27.0	27.9	28.7	30.5	33.1	34.8
75°	24.4	23.5	16.5	16.5	20.0	22.6	24.4	26.1	27.9
77.5°	13.1	12.2	9.6	11.3	14.8	17.4	19.2	20.9	21.8
80°	7.8	6.1	5.2	7.0	9.6	12.2	13.9	15.7	16.5
82.5°	3.5	2.6	1.7	2.6	5.2	7.0	9.6	11.3	12.2
85°	0.0	0.0	0.0	0.0	0.9	2.6	5.2	7.0	7.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.7	2.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)