

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: P130251

Luminaire Tested: **HL612ICAT - HLM6930 - HL6WFL - 456W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P130251
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33489)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: HL612ICAT - HLM6930 - HL6WFL - 456W
Description: HALO ALLSLOPE 6" 21W, White Coilex Baffle, White Metal Trim Ring using 55 Degree Optic at a 6-12 Pitch
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1539.0 lumens
Efficiency: N/A
Efficacy: 80.6 lumens/watt
Spacing Criteria (0/90/45): 1.45 / 0.79 / 1.17
Luminous Opening: Vertical Cylinder (Dia: 0.48' x H: 0.1')
CIE Type: Direct

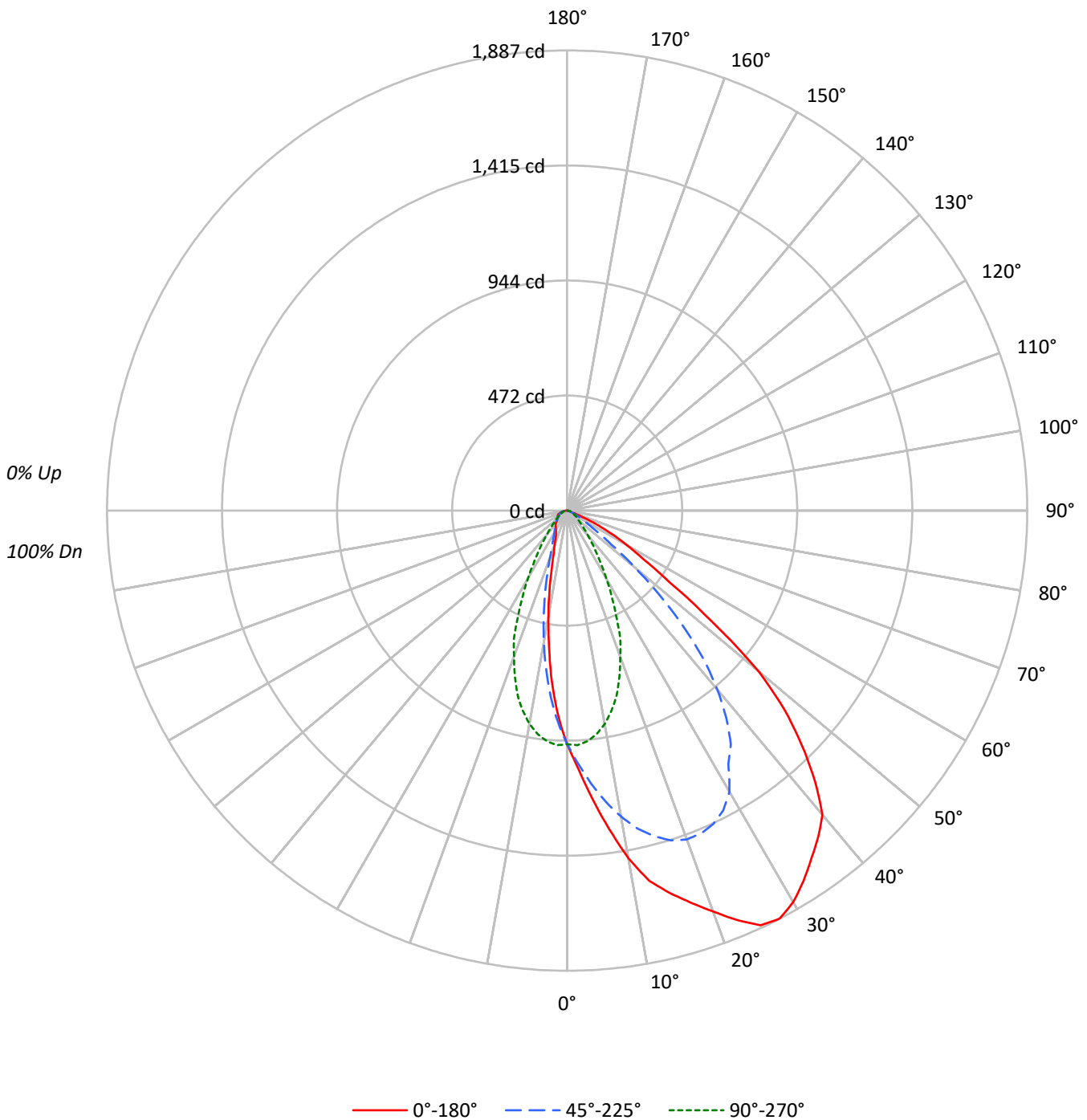
Input Watts (W): 19.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	71
4	91	81	74	69	89	80	73	68	78	72	67	75	70	67	73	69	66	64
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	54	52
7	74	62	55	50	72	62	55	50	60	54	49	59	53	49	58	53	49	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	45	43
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39
10	61	50	43	38	60	49	43	38	48	42	38	47	42	38	47	41	38	36

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	57148	57148	57148
5°	69461	55594	41640
10°	83779	51437	25557
15°	93618	45234	13984
20°	101337	36907	8694
25°	109958	27841	6346
30°	110784	19182	5468
35°	107197	12576	5032
40°	103753	8283	4651
45°	90830	5836	4068
50°	72341	4359	3682
55°	38746	3508	3327
60°	22965	2755	3671
65°	11480	2240	3608
70°	2350	2028	3319
75°	926	1864	2883
80°	768	1536	2208
85°	543	950	1221



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.3	5.8
10°-20°	242.1	15.7
20°-30°	344.0	22.4
30°-40°	372.7	24.2
40°-50°	293.3	19.1
50°-60°	129.2	8.4
60°-70°	45.0	2.9
70°-80°	17.4	1.1
80°-90°	6.0	0.4
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°	675.5	43.9
0°-40°	1048.1	68.1
0°-60°	1470.6	95.6
0°-90°	1539.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1539.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	957	957	957	957	957	
5°	1186	1123	949	769	711	121
15°	1623	1383	784	350	242	462
25°	1876	1418	475	138	108	856
35°	1745	1170	205	89	82	1093
45°	1362	679	88	63	61	1040
55°	514	143	46	43	44	507
65°	128	33	25	34	40	134
75°	8	10	16	22	25	11
85°	3	4	6	7	7	3
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°	957.4	957.4	957.4	957.4	957.4	957.4	957.4	957.4	957.4
2.5°	1059.4	1051.3	1038.5	997.6	963.1	914.9	868.4	861.9	842.7
5°	1186.2	1168.5	1122.8	1034.5	949.4	853.9	768.8	731.1	711.1
7.5°	1315.4	1287.3	1202.2	1060.2	924.5	780.9	658.1	605.1	565.0
10°	1447.0	1400.5	1274.5	1075.4	888.4	698.2	548.9	477.5	441.4
12.5°	1554.6	1501.6	1336.3	1078.6	840.3	607.5	443.0	363.6	332.3
15°	1622.8	1585.0	1382.8	1071.4	784.1	517.6	349.9	268.9	242.4
17.5°	1685.4	1637.2	1418.1	1051.3	713.5	431.0	264.8	199.0	179.8
20°	1749.6	1672.5	1435.0	1019.2	637.2	345.9	202.2	161.3	150.1
22.5°	1817.0	1699.0	1433.4	976.7	569.8	277.7	165.3	135.6	125.2
25°	1876.4	1717.5	1418.1	918.1	475.1	218.3	138.0	116.4	108.3
27.5°	1886.8	1719.9	1386.0	845.9	394.1	178.2	119.6	102.7	97.9
30°	1853.9	1710.2	1331.4	764.0	321.0	149.3	104.3	95.5	91.5
32.5°	1802.5	1694.2	1230.3	674.1	256.8	128.4	95.5	89.9	86.7
35°	1744.8	1650.9	1170.1	577.8	204.7	110.8	89.1	85.1	81.9
37.5°	1690.2	1570.6	1071.4	483.1	166.1	96.3	82.7	80.3	77.8
40°	1628.4	1468.7	958.3	390.0	130.0	86.7	76.2	74.6	73.0
42.5°	1504.8	1336.3	829.8	292.1	107.5	77.0	69.8	68.2	66.6
45°	1361.9	1187.0	679.0	209.5	87.5	68.2	62.6	61.8	61.0
47.5°	1210.3	1022.5	516.0	142.1	71.4	61.0	56.2	56.2	55.4
50°	1025.7	823.4	361.1	94.7	61.8	53.8	51.4	50.6	52.2
52.5°	750.4	601.9	229.5	69.8	53.0	48.2	46.5	48.2	49.0
55°	513.6	398.9	142.9	57.8	46.5	42.5	43.3	45.7	44.1
57.5°	370.0	274.5	94.7	47.4	40.1	37.7	40.1	44.1	45.7
60°	280.9	198.2	64.2	39.3	33.7	34.5	37.7	43.3	44.9
62.5°	203.0	132.4	45.7	31.3	28.9	31.3	36.1	41.7	42.5
65°	127.6	73.8	32.9	24.9	24.9	28.9	34.5	39.3	40.1
67.5°	65.0	38.5	22.5	20.1	22.5	27.3	32.1	36.1	36.9
70°	23.3	19.3	16.1	16.9	20.1	24.9	28.9	32.1	32.9
72.5°	11.2	12.0	12.0	14.4	18.5	22.5	25.7	28.1	28.9
75°	8.0	8.8	9.6	12.0	16.1	19.3	22.5	24.1	24.9
77.5°	6.4	7.2	8.0	10.4	13.6	16.9	18.5	20.1	20.9
80°	5.6	5.6	7.2	8.8	11.2	12.8	14.4	16.1	16.1
82.5°	4.0	4.8	5.6	7.2	8.0	9.6	10.4	12.0	12.0
85°	3.2	3.2	4.0	4.8	5.6	6.4	7.2	8.0	7.2
87.5°	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)