

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: P130236

Luminaire Tested: **HL612ICAT - HLM6935 - HL6WFL - 455H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P130236
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33485)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: HL612ICAT - HLM6935 - HL6WFL - 455H
Description: HALO ALLSLOPE 6" 21W, Semi-Specular Haze Reflector, White Metal Trim Ring using 55 Degree Optic at a 6-12 Pitch
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1602.2 lumens
Efficiency: N/A
Efficacy: 83.9 lumens/watt
Spacing Criteria (0/90/45): 1.45 / 0.76 / 1.17
Luminous Opening: Vertical Cylinder (Dia: 0.48' x H: 0.1')
CIE Type: Direct

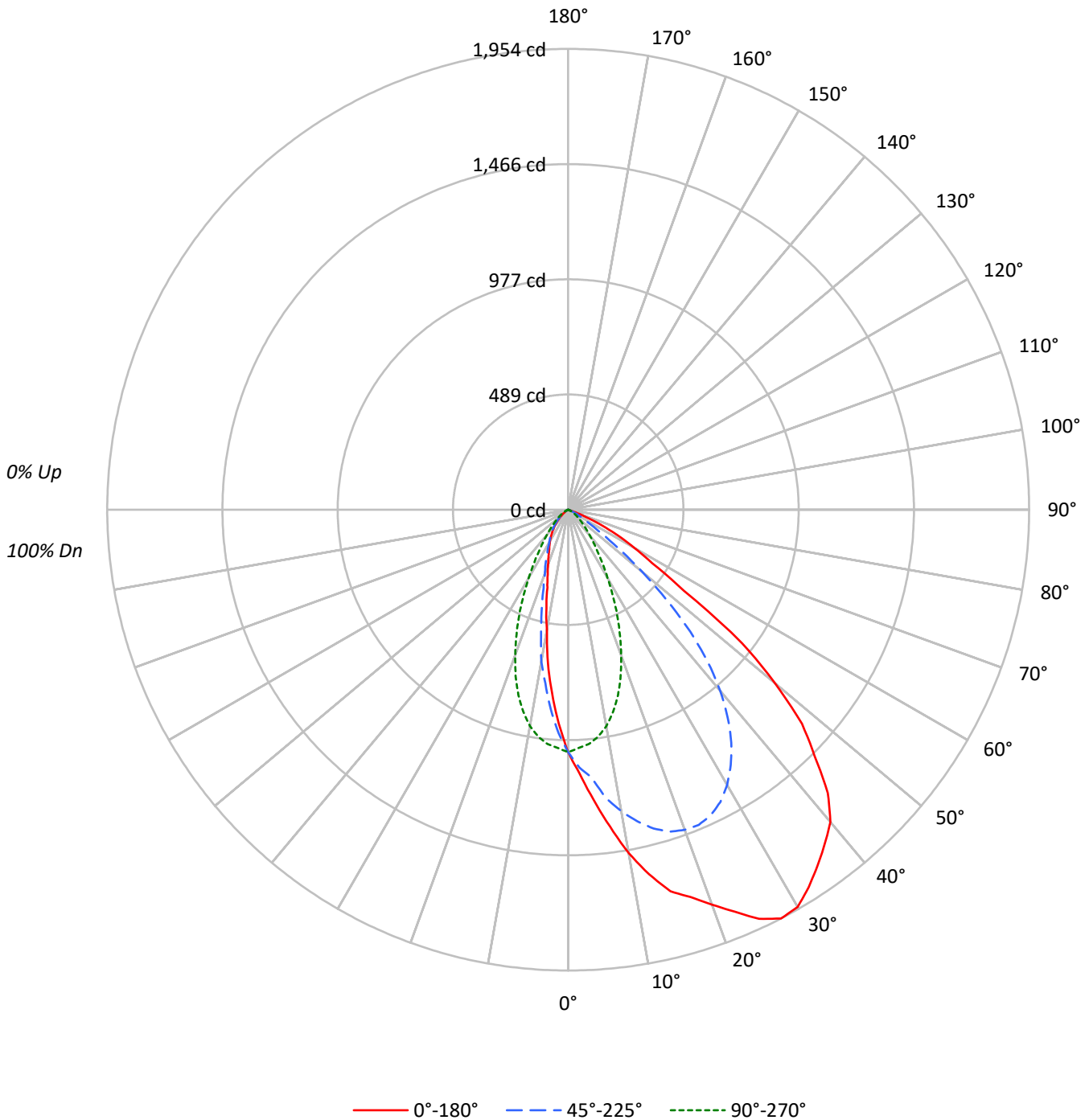
Input Watts (W): 19.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91					91			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	85	83	81					81			
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73					73			
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65					65			
5	85	75	68	63	83	74	67	62	72	66	62	70	65	61	69	64	60	59					59			
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53					53			
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48					48			
8	70	59	51	46	69	58	51	46	57	50	46	56	50	46	54	49	46	44					44			
9	66	54	47	42	65	54	47	42	53	46	42	52	46	42	51	46	42	40					40			
10	62	50	44	39	61	50	43	39	49	43	39	48	43	39	47	42	38	37					37			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	61344	61344	61344
5°	72289	58440	45751
10°	85603	53921	30154
15°	96652	46970	19683
20°	103196	37995	14416
25°	112185	28732	11204
30°	116222	19947	9209
35°	113211	13418	7293
40°	110162	9188	5511
45°	98546	6263	3795
50°	80613	4182	2264
55°	45196	2799	1184
60°	26415	1684	540
65°	14611	819	225
70°	3329	333	0
75°	289	185	0
80°	0	219	0
85°	0	271	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.2	5.9
10°-20°	258.1	16.1
20°-30°	365.8	22.8
30°-40°	398.0	24.8
40°-50°	316.9	19.8
50°-60°	133.8	8.4
60°-70°	31.2	1.9
70°-80°	2.4	0.1
80°-90°	0.9	0.1
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°	719.1	44.9
0°-40°	1117.2	69.7
0°-60°	1567.9	97.9
0°-90°	1602.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1602.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1028	1028	1028	1028	1028	
5°	1234	1139	998	850	781	125
15°	1675	1399	814	430	341	473
25°	1914	1430	490	213	191	879
35°	1843	1206	218	126	119	1154
45°	1478	732	94	66	57	1134
55°	599	154	37	22	16	594
65°	162	26	9	4	2	162
75°	2	2	2	1	0	7
85°	0	1	2	1	0	0
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°	1027.7	1027.7	1027.7	1027.7	1027.7	1027.7	1027.7	1027.7	1027.7
2.5°	1120.0	1128.2	1094.4	1060.6	1011.2	991.4	947.7	930.4	908.2
5°	1234.5	1231.2	1138.9	1091.1	998.0	932.1	849.7	811.8	781.3
7.5°	1354.8	1344.1	1234.5	1110.1	970.8	858.7	742.5	685.7	657.6
10°	1478.5	1450.4	1298.0	1120.0	931.3	771.4	653.5	570.3	520.8
12.5°	1583.1	1550.2	1353.2	1120.0	877.7	680.7	529.1	452.4	427.7
15°	1675.4	1633.4	1399.3	1104.3	814.2	589.2	430.2	360.1	341.2
17.5°	1721.6	1701.0	1431.5	1079.6	740.1	496.1	347.8	302.5	289.3
20°	1781.7	1733.9	1444.7	1040.9	656.0	406.3	287.6	260.4	248.9
22.5°	1844.4	1760.3	1446.3	990.6	571.9	332.1	253.0	226.6	218.4
25°	1914.4	1780.1	1429.8	928.0	490.3	272.0	212.6	197.8	191.2
27.5°	1954.0	1791.6	1396.9	854.6	408.8	230.8	184.6	179.7	171.4
30°	1944.9	1789.2	1347.4	767.3	333.8	194.5	160.7	157.4	154.1
32.5°	1897.1	1777.6	1283.1	676.6	269.5	166.5	142.6	139.3	136.0
35°	1842.7	1748.8	1205.7	578.5	218.4	142.6	126.1	122.0	118.7
37.5°	1786.7	1680.4	1110.9	484.6	177.2	122.0	109.6	104.7	101.4
40°	1729.0	1582.3	1002.9	395.6	144.2	106.3	94.8	89.8	86.5
42.5°	1629.3	1456.2	876.9	301.6	116.2	90.7	79.9	76.6	71.7
45°	1477.6	1288.1	731.8	215.9	93.9	75.8	65.9	59.3	56.9
47.5°	1344.1	1148.8	565.3	146.7	75.0	61.8	51.9	47.0	43.7
50°	1143.0	945.3	404.6	99.7	59.3	48.6	40.4	35.4	32.1
52.5°	929.6	688.1	262.9	66.8	47.8	38.7	30.5	25.5	23.1
55°	599.1	461.5	154.1	50.3	37.1	29.7	22.3	16.5	15.7
57.5°	421.9	318.1	94.8	38.7	28.8	21.4	15.7	11.5	9.9
60°	323.1	226.6	61.8	29.7	20.6	14.8	9.9	7.4	6.6
62.5°	239.0	154.1	41.2	21.4	14.0	9.9	6.6	4.9	4.1
65°	162.4	86.5	25.5	14.0	9.1	5.8	4.1	2.5	2.5
67.5°	82.4	41.2	14.8	9.1	5.8	3.3	2.5	1.6	0.8
70°	33.0	14.8	7.4	4.9	3.3	2.5	1.6	0.8	0.0
72.5°	8.2	5.8	4.1	2.5	2.5	1.6	0.8	0.8	0.0
75°	2.5	2.5	1.6	1.6	1.6	1.6	0.8	0.8	0.0
77.5°	0.8	0.8	0.8	1.6	1.6	1.6	0.8	0.8	0.0
80°	0.0	0.8	0.8	1.6	1.6	1.6	0.8	0.0	0.0
82.5°	0.0	0.8	0.8	1.6	1.6	1.6	0.8	0.0	0.0
85°	0.0	0.8	0.8	1.6	1.6	1.6	0.8	0.0	0.0
87.5°	0.0	0.8	0.8	1.6	1.6	1.6	0.8	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)