

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: P130134

Luminaire Tested: **HL618TAT - HLM6940 - HL6WFL - 73PS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P130134
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33493)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: HL618TAT - HLM6940 - HL6WFL - 73PS
Description: HALO ALLSLOPE 6" 30W, Fresnel Glass Lens, White Polymer Trim Ring
"Dead Front", Wet Location - Showerlight using 55 Degree Optic at a 6-12
Pitch
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1877.1 lumens
Efficiency: N/A
Efficacy: 68.0 lumens/watt
Spacing Criteria (0/90/45): 1.45 / 0.91 / 1.12
Luminous Opening: Vertical Cylinder (Dia: 0.48' x H: 0.1')
CIE Type: Direct

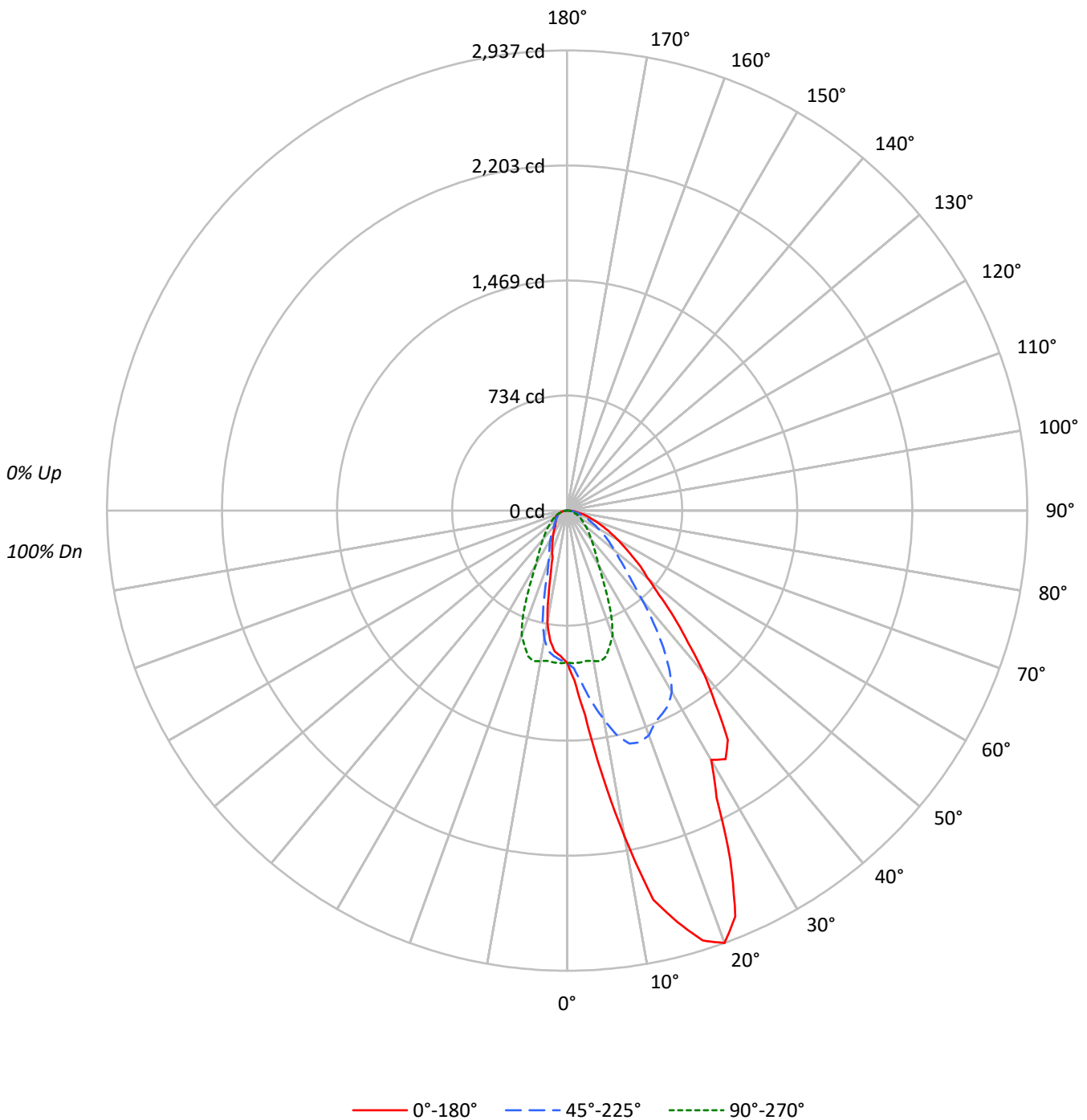
Input Watts (W): 27.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	90	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77
3	95	87	80	75	93	85	79	74	82	77	73	80	75	71	77	74	70	68
4	89	79	71	66	87	78	71	65	75	69	64	73	68	64	71	66	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	61	57	65	60	57	55
6	77	66	58	53	76	65	58	53	63	57	52	62	56	52	60	55	51	49
7	73	61	53	48	71	60	53	48	59	52	47	57	51	47	56	51	47	45
8	68	56	49	44	67	56	49	44	54	48	43	53	47	43	52	47	43	41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	43	40	38
10	61	49	42	37	59	48	42	37	47	41	37	47	41	37	46	40	37	35

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	57948	57948	57948
5°	76558	57000	52871
10°	122311	56434	42006
15°	156799	55554	22660
20°	170122	49122	16322
25°	144514	35711	12998
30°	109786	23861	10607
35°	109826	18757	8736
40°	86378	15215	7563
45°	64399	12965	6963
50°	47395	10770	6623
55°	38097	9256	6593
60°	30511	8216	6614
65°	24067	6928	6694
70°	18693	5790	5659
75°	14509	4991	4991
80°	9845	3935	4292
85°	7091	2443	2884



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.9	5.4
10°-20°	324.6	17.3
20°-30°	417.3	22.2
30°-40°	381.6	20.3
40°-50°	265.3	14.1
50°-60°	181.1	9.6
60°-70°	118.9	6.3
70°-80°	64.4	3.4
80°-90°	22.0	1.2
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°	843.8	45.0
0°-40°	1225.4	65.3
0°-60°	1671.8	89.1
0°-90°	1877.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1877.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	971	971	971	971	971	
5°	1307	1114	973	934	903	152
15°	2718	1540	963	561	393	767
25°	2466	1433	609	268	222	1108
35°	1788	1074	305	164	142	1064
45°	966	521	194	110	104	751
55°	505	308	123	82	87	458
65°	268	166	77	63	74	269
75°	125	80	43	39	43	132
85°	42	25	14	14	17	43
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°	970.8	970.8	970.8	970.8	970.8	970.8	970.8	970.8	970.8
2.5°	1085.6	1037.3	1008.6	995.6	974.7	949.9	955.1	929.0	930.3
5°	1307.4	1217.4	1114.3	1025.6	973.4	930.3	934.3	902.9	902.9
7.5°	1689.8	1499.2	1237.0	1068.7	966.9	918.6	906.9	842.9	833.8
10°	2112.5	1820.2	1355.7	1094.8	974.7	901.6	832.5	745.1	725.5
12.5°	2544.4	2155.6	1470.5	1114.3	985.1	848.1	724.2	587.2	544.1
15°	2718.0	2386.5	1539.7	1132.6	963.0	775.1	561.1	409.7	392.8
17.5°	2877.1	2475.3	1550.1	1154.8	902.9	652.4	411.0	339.3	307.9
20°	2937.2	2423.1	1525.3	1150.9	848.1	499.7	345.8	296.2	281.8
22.5°	2804.1	2252.1	1464.0	1110.4	741.1	395.4	300.1	259.7	250.5
25°	2466.1	2006.8	1432.7	1051.7	609.4	339.3	267.5	229.6	221.8
27.5°	2065.5	1813.7	1398.8	953.8	488.0	300.1	238.8	207.5	197.0
30°	1837.2	1719.8	1336.1	826.0	399.3	264.9	211.4	182.7	177.5
32.5°	1881.6	1706.7	1220.0	694.2	347.1	234.9	189.2	161.8	159.2
35°	1787.6	1560.6	1073.9	548.0	305.3	206.2	164.4	143.5	142.2
37.5°	1552.7	1347.9	906.9	451.5	270.1	182.7	146.1	129.2	121.3
40°	1355.7	1153.5	743.8	390.1	238.8	163.1	131.8	118.7	118.7
42.5°	1143.0	974.7	609.4	345.8	215.3	147.4	121.3	110.9	110.9
45°	965.6	802.5	520.6	307.9	194.4	133.1	109.6	101.8	104.4
47.5°	795.9	673.3	448.9	276.6	173.5	120.0	101.8	95.3	97.9
50°	672.0	576.7	394.1	244.0	152.7	108.3	93.9	91.3	93.9
52.5°	593.7	502.4	347.1	214.0	137.0	99.2	87.4	88.7	91.3
55°	505.0	435.8	307.9	187.9	122.7	91.3	82.2	83.5	87.4
57.5°	431.9	377.1	263.6	165.7	109.6	83.5	77.0	80.9	84.8
60°	373.2	327.5	228.3	146.1	100.5	75.7	71.8	78.3	80.9
62.5°	319.7	281.8	197.0	125.3	87.4	69.2	69.2	74.4	79.6
65°	267.5	236.2	165.7	107.0	77.0	62.6	62.6	70.5	74.4
67.5°	223.1	198.3	139.6	93.9	67.9	56.1	56.1	61.3	67.9
70°	185.3	163.1	116.1	78.3	57.4	49.6	49.6	52.2	56.1
72.5°	150.1	131.8	97.9	65.2	49.6	41.8	44.4	47.0	48.3
75°	125.3	108.3	79.6	53.5	43.1	36.5	39.1	40.4	43.1
77.5°	97.9	84.8	62.6	44.4	36.5	31.3	32.6	35.2	36.5
80°	71.8	62.6	47.0	33.9	28.7	26.1	27.4	31.3	31.3
82.5°	54.8	49.6	33.9	26.1	22.2	19.6	20.9	22.2	23.5
85°	41.8	32.6	24.8	17.0	14.4	13.0	14.4	15.7	17.0
87.5°	24.8	20.9	15.7	10.4	9.1	7.8	7.8	9.1	9.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)