

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: P130253

Luminaire Tested: **HL612ICAT - HLM6940 - HL6WFL - 456W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P130253
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 - HLM6940 - 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 / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1702.0 lumens
Efficiency: N/A
Efficacy: 89.1 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

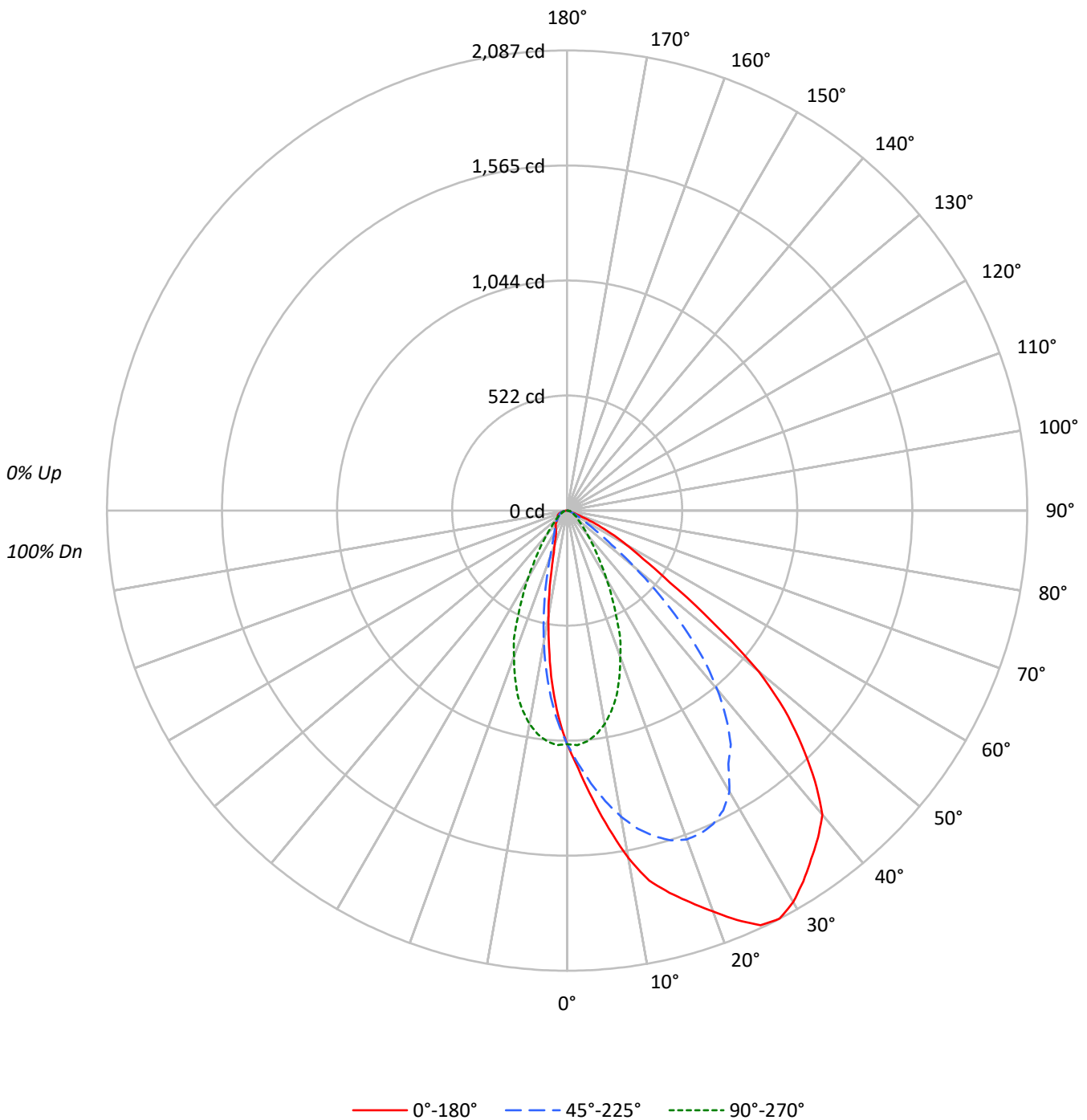
Input Watts (W): 19.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90					90			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80					80			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71					71			
4	91	81	74	69	89	80	73	68	78	72	67	75	70	67	73	69	66	64					64			
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	57					57			
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	54	52					52			
7	74	62	55	50	72	62	55	50	60	54	49	59	53	49	58	53	49	47					47			
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43					43			
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39					39			
10	61	50	43	38	60	49	43	38	48	42	38	47	42	38	47	41	38	36					36			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	63200	63200	63200
5°	76816	61485	46050
10°	92650	56886	28260
15°	103529	50022	15461
20°	112063	40816	9615
25°	121602	30789	7020
30°	122514	21214	6047
35°	118544	13903	5560
40°	114737	9162	5148
45°	100447	6449	4502
50°	80000	4817	4069
55°	42850	3885	3681
60°	25393	3049	4063
65°	12695	2474	3995
70°	2593	2239	3672
75°	1031	2061	3184
80°	850	1700	2441
85°	611	1052	1357



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.8	5.8
10°-20°	267.8	15.7
20°-30°	380.4	22.4
30°-40°	412.1	24.2
40°-50°	324.3	19.1
50°-60°	142.9	8.4
60°-70°	49.8	2.9
70°-80°	19.2	1.1
80°-90°	6.6	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°	747.0	43.9
0°-40°	1159.1	68.1
0°-60°	1626.4	95.6
0°-90°	1702.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1702.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1059	1059	1059	1059	1059	
5°	1312	1242	1050	850	786	134
15°	1795	1529	867	387	268	511
25°	2075	1568	525	153	120	946
35°	1930	1294	226	98	90	1209
45°	1506	751	97	69	68	1150
55°	568	158	52	48	49	560
65°	141	36	28	38	44	148
75°	9	11	18	25	28	12
85°	4	4	6	8	8	4
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°	1058.8	1058.8	1058.8	1058.8	1058.8	1058.8	1058.8	1058.8	1058.8
2.5°	1171.5	1162.7	1148.5	1103.2	1065.0	1011.8	960.3	953.2	931.9
5°	1311.8	1292.3	1241.7	1144.0	1050.0	944.3	850.3	808.5	786.4
7.5°	1454.7	1423.6	1329.5	1172.4	1022.4	863.6	727.8	669.2	624.8
10°	1600.2	1548.8	1409.4	1189.3	982.5	772.2	607.1	528.1	488.1
12.5°	1719.2	1660.6	1477.7	1192.8	929.3	671.9	489.9	402.1	367.4
15°	1794.6	1752.9	1529.2	1184.9	867.1	572.5	387.0	297.3	268.0
17.5°	1863.8	1810.6	1568.3	1162.7	789.0	476.6	292.9	220.1	198.8
20°	1934.8	1849.6	1586.9	1127.2	704.7	382.5	223.7	178.4	166.0
22.5°	2009.4	1878.9	1585.1	1080.1	630.2	307.1	182.8	150.0	138.5
25°	2075.1	1899.3	1568.3	1015.3	525.4	241.4	152.7	128.7	119.8
27.5°	2086.6	1902.0	1532.8	935.5	435.8	197.0	132.2	113.6	108.3
30°	2050.2	1891.3	1472.4	844.9	355.0	165.1	115.4	105.6	101.2
32.5°	1993.4	1873.6	1360.6	745.5	284.0	142.0	105.6	99.4	95.9
35°	1929.5	1825.7	1294.0	639.0	226.3	122.5	98.5	94.1	90.5
37.5°	1869.2	1736.9	1184.9	534.3	183.7	106.5	91.4	88.8	86.1
40°	1800.8	1624.2	1059.7	431.3	143.8	95.9	84.3	82.5	80.8
42.5°	1664.1	1477.7	917.7	323.1	118.9	85.2	77.2	75.4	73.7
45°	1506.1	1312.7	750.9	231.6	96.7	75.4	69.2	68.3	67.5
47.5°	1338.4	1130.7	570.7	157.1	79.0	67.5	62.1	62.1	61.2
50°	1134.3	910.6	399.4	104.7	68.3	59.5	56.8	55.9	57.7
52.5°	829.8	665.7	253.8	77.2	58.6	53.3	51.5	53.3	54.1
55°	568.0	441.1	158.0	63.9	51.5	47.0	47.9	50.6	48.8
57.5°	409.2	303.5	104.7	52.4	44.4	41.7	44.4	48.8	50.6
60°	310.6	219.2	71.0	43.5	37.3	38.2	41.7	47.9	49.7
62.5°	224.5	146.4	50.6	34.6	32.0	34.6	39.9	46.2	47.0
65°	141.1	81.7	36.4	27.5	27.5	32.0	38.2	43.5	44.4
67.5°	71.9	42.6	24.9	22.2	24.9	30.2	35.5	39.9	40.8
70°	25.7	21.3	17.8	18.6	22.2	27.5	32.0	35.5	36.4
72.5°	12.4	13.3	13.3	16.0	20.4	24.9	28.4	31.1	32.0
75°	8.9	9.8	10.7	13.3	17.8	21.3	24.9	26.6	27.5
77.5°	7.1	8.0	8.9	11.5	15.1	18.6	20.4	22.2	23.1
80°	6.2	6.2	8.0	9.8	12.4	14.2	16.0	17.8	17.8
82.5°	4.4	5.3	6.2	8.0	8.9	10.7	11.5	13.3	13.3
85°	3.6	3.6	4.4	5.3	6.2	7.1	8.0	8.9	8.0
87.5°	1.8	1.8	2.7	2.7	3.6	3.6	3.6	3.6	3.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)