

Scaled data based on original data using  
LM-46-04 Photometric Testing of Indoor Luminaires Using High Intensity Discharge or  
Incandescent Filament Lamps (Reaffirmed 2012)

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: H20051

Luminaire Tested: **L3240EP**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-46-04  
Report Number: H20051  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: L3240EP  
Description: HALO 24" RECTANGULAR TRACK FIXTURE  
SPECULAR REFLECTOR  
Light Source: (2) 40W TT 40 WATTS 3150 LUMENS EACH  
TWIN TUBE COMPACT FLUORESCENT  
Ballast/Driver: -

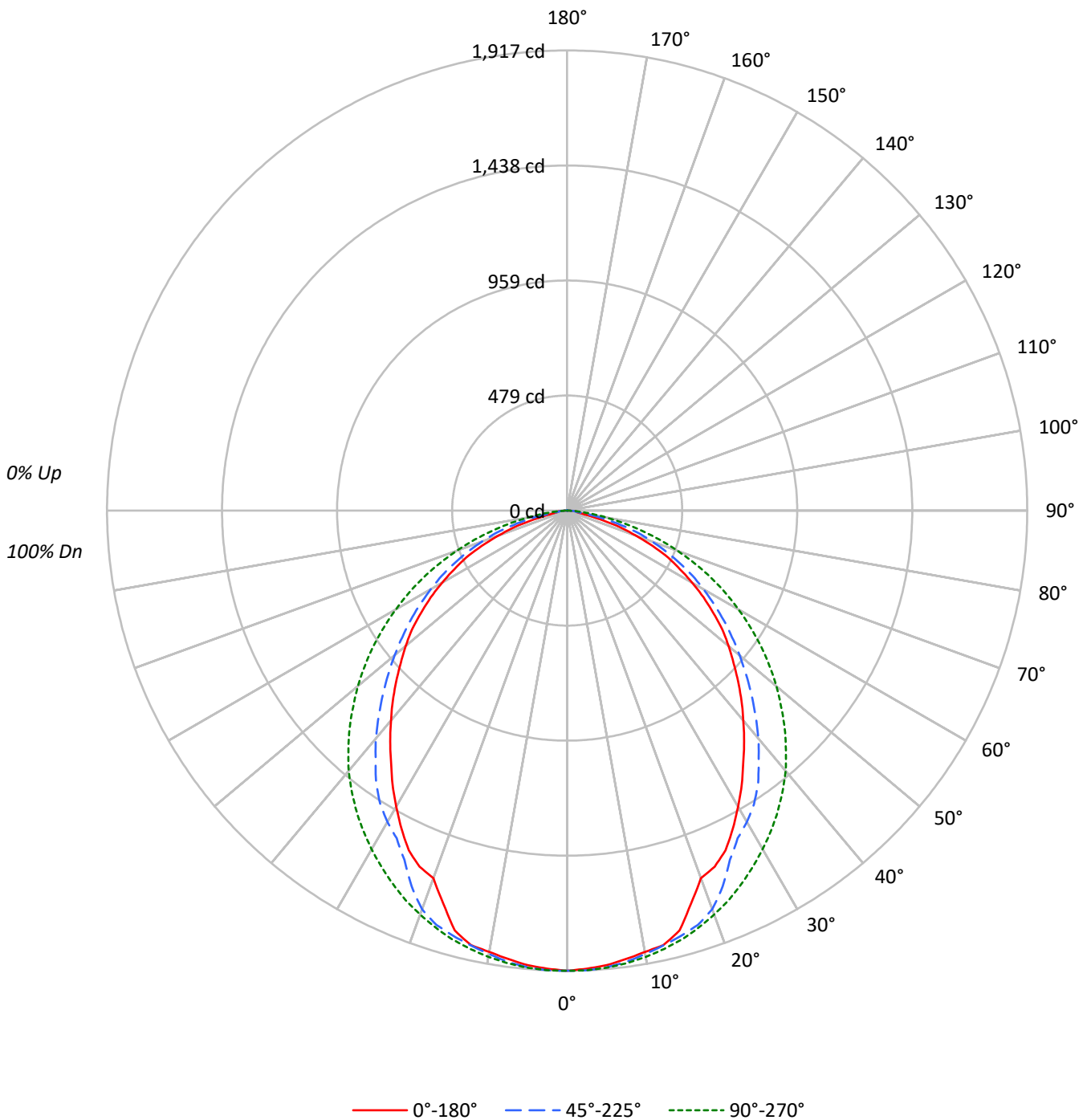
**Summary**

Lumens per Lamp: 3150 (2 lamps)  
Luminaire Lumens: 4729.5 lumens  
Efficiency: 75.1%  
Efficacy: 78.8 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 1.26 / 1.28  
Luminous Opening: Rectangular (W 2.01' x L: 0.47' x H: 0')  
CIE Type: Direct

Input Watts (W): 60  
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	0	
RCR																						
0	89	89	89	89	87	87	87	87	83	83	83	80	80	80	77	77	77	75				75
1	82	79	76	73	80	77	75	72	74	72	70	71	69	68	68	67	66	64				64
2	75	69	65	60	73	68	63	60	65	62	58	63	60	57	61	58	56	54				54
3	69	61	55	51	67	60	55	50	58	53	49	56	52	49	54	51	48	46				46
4	63	55	48	43	61	54	48	43	52	47	42	50	45	42	48	44	41	40				40
5	58	49	42	38	57	48	42	37	46	41	37	45	40	37	44	39	36	35				35
6	54	44	38	33	52	43	37	33	42	37	33	41	36	32	40	35	32	30				30
7	50	40	34	29	49	40	33	29	38	33	29	37	32	29	36	32	28	27				27
8	47	37	30	26	45	36	30	26	35	30	26	34	29	26	33	29	26	24				24
9	44	34	28	24	43	33	28	24	32	27	23	32	27	23	31	26	23	22				22
10	41	31	25	21	40	31	25	21	30	25	21	29	25	21	29	24	21	20				20

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	21842	21842	21842
5°	21743	21834	21857
10°	21601	21705	21844
15°	21362	21634	21811
20°	19764	21437	21716
25°	19625	20178	21586
30°	18735	19709	21432
35°	17790	19292	21282
40°	16986	18444	21061
45°	16226	17499	20658
50°	15563	16627	20172
55°	14760	15812	19587
60°	13741	14972	18777
65°	12564	13939	17821
70°	10061	12526	16290
75°	6251	10125	14043
80°	2821	5512	10827
85°	4837	4053	6406



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	181.1	3.8	2.9
10°-20°	514.1	10.9	8.2
20°-30°	751.5	15.9	11.9
30°-40°	873.7	18.5	13.9
40°-50°	857.4	18.1	13.6
50°-60°	738.3	15.6	11.7
60°-70°	524.6	11.1	8.3
70°-80°	243.7	5.2	3.9
80°-90°	44.5	0.9	0.7
90°-100°	0.4	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.2	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-30°	1446.7	30.6	23.0
0°-40°	2320.5	49.1	36.8
0°-60°	3916.1	82.8	62.2
0°-90°	4728.9	100.0	75.1
90°-120°	0.4	0.0	0.0
90°-150°	0.7	0.0	0.0
90°-180°	1.0	0.0	0.0
0°-180°	4729.5	100.0	75.1

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1917	1917	1917	1917	1917	
5°	1901	1905	1909	1910	1911	180
15°	1811	1830	1834	1841	1849	502
25°	1561	1572	1605	1708	1717	713
35°	1279	1308	1387	1501	1530	802
45°	1007	1025	1086	1184	1282	778
55°	743	760	796	884	986	664
65°	466	479	517	564	661	453
75°	142	171	230	277	319	163
85°	37	36	31	35	49	30
90°	3	3	3	4	2	4
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	1	1	1	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1917	1917	1917	1917	1917
2.5°	1910	1914	1917	1916	1917
5°	1901	1905	1909	1910	1911
7.5°	1884	1889	1896	1900	1902
10°	1867	1870	1876	1885	1888
12.5°	1854	1856	1855	1865	1870
15°	1811	1830	1834	1841	1849
17.5°	1716	1757	1810	1812	1822
20°	1630	1660	1768	1781	1791
22.5°	1606	1606	1694	1745	1757
25°	1561	1572	1605	1708	1717
27.5°	1495	1522	1539	1669	1674
30°	1424	1452	1498	1624	1629
32.5°	1354	1381	1449	1570	1581
35°	1279	1308	1387	1501	1530
37.5°	1211	1235	1311	1423	1474
40°	1142	1165	1240	1335	1416
42.5°	1075	1093	1162	1256	1349
45°	1007	1025	1086	1184	1282
47.5°	940	959	1011	1117	1209
50°	878	891	938	1046	1138
52.5°	815	827	866	967	1063
55°	743	760	796	884	986
57.5°	674	691	725	804	906
60°	603	621	657	722	824
62.5°	530	549	589	642	744
65°	466	479	517	564	661
67.5°	386	414	447	489	575
70°	302	327	376	417	489
72.5°	232	251	310	347	404
75°	142	171	230	277	319
77.5°	73	95	160	210	240
80°	43	44	84	147	165
82.5°	43	40	35	90	102
85°	37	36	31	35	49
87.5°	21	21	21	16	14
90°	3	3	3	4	2
92.5°	0	0	0	0	0
95°	0	0	0	0	0
97.5°	0	0	0	0	0
100°	0	0	0	0	0
102.5°	0	0	0	0	0
105°	0	0	0	0	0
107.5°	0	0	0	0	0
110°	0	0	0	0	0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0	0	0	0	0
115°	0	0	0	0	0
117.5°	0	0	0	0	0
120°	0	0	0	0	0
122.5°	1	1	0	0	0
125°	1	1	1	0	0
127.5°	0	0	0	0	0
130°	0	0	0	0	0
132.5°	0	0	0	0	0
135°	0	0	0	0	0
137.5°	0	0	0	0	0
140°	0	0	0	0	0
142.5°	0	0	0	0	0
145°	0	0	0	0	0
147.5°	0	0	0	0	0
150°	0	0	0	0	0
152.5°	0	0	0	0	0
155°	0	0	0	0	0
157.5°	0	0	0	0	0
160°	0	0	0	0	0
162.5°	0	0	0	0	0
165°	0	0	0	0	0
167.5°	0	0	0	0	0
170°	0	0	0	0	0
172.5°	0	0	0	0	0
175°	0	0	0	0	0
177.5°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)