

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: H20053

Luminaire Tested: **L3232EP-LVR3232MB**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-46-04  
Report Number: H20053  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: L3232EP-LVR3232MB  
Description: HALO 16" RECTANGULAR TRACK FIXTURE  
SPECULAR REFLECTOR WITH BLACK LOUVER  
Light Source: (2) 32W PLT 32 WATTS 2400 LUMENS EACH  
HEX TUBE COMPACT FLUORESCENT  
Ballast/Driver: -

**Summary**

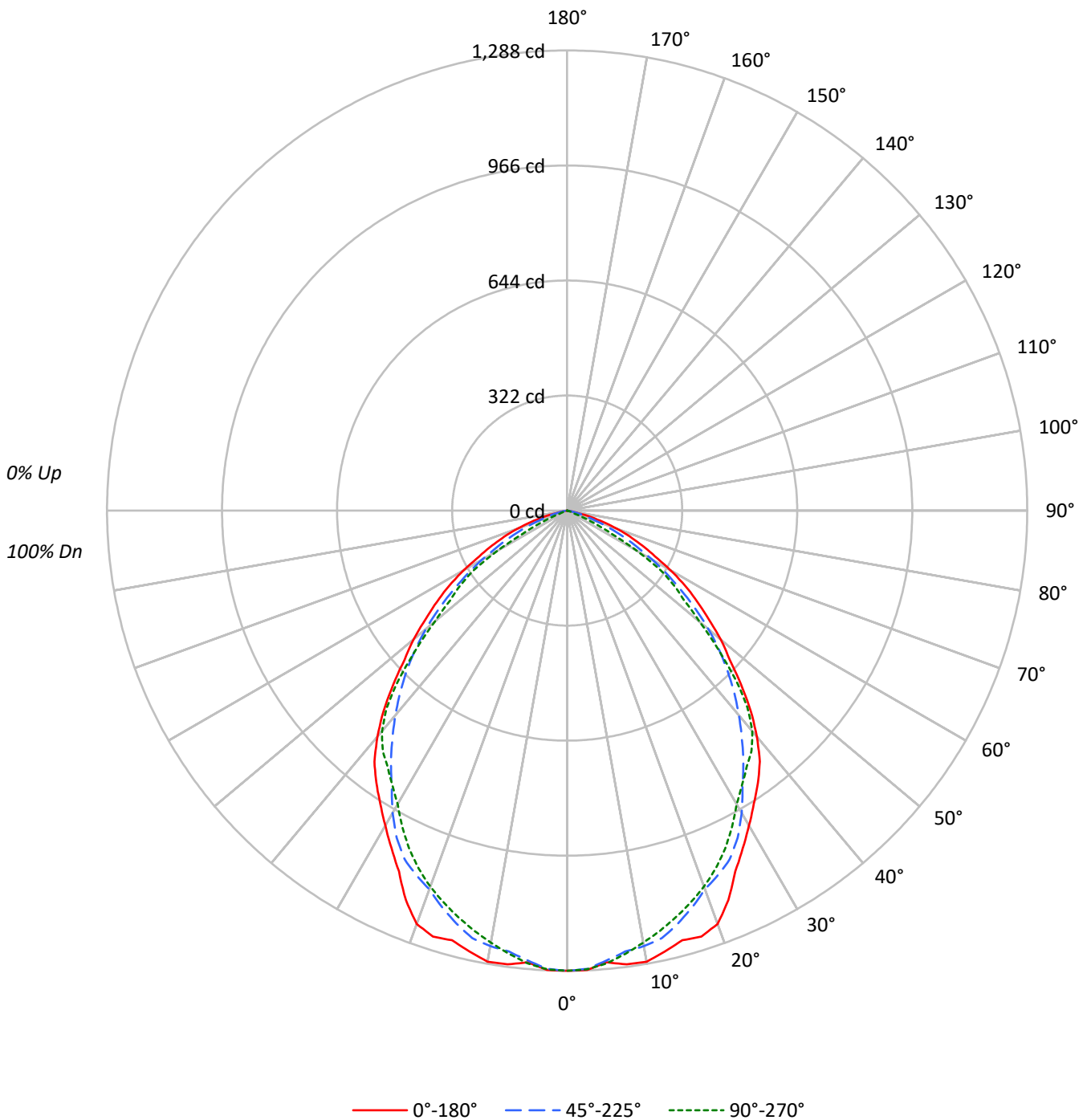
Lumens per Lamp: 2400 (2 lamps)  
Luminaire Lumens: 2563.8 lumens  
Efficiency: 53.4%  
Efficacy: 36.6 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.11 / 1.21  
Luminous Opening: Rectangular (W 1.36' x L: 0.47' x H: 0')  
CIE Type: Direct

Input Watts (W): 70  
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	64	64	64	64	62	62	62	62	59	59	59	57	57	57	55	55	55	53				53
1	59	57	56	54	58	56	55	53	54	53	51	52	51	50	50	49	48	47				47
2	55	51	48	46	54	50	48	45	49	46	44	47	45	43	45	44	42	41				41
3	51	46	42	39	50	45	42	39	44	41	38	42	40	38	41	39	37	36				36
4	47	41	37	34	46	41	37	34	39	36	34	38	35	33	37	35	33	32				32
5	44	37	33	30	42	37	33	30	36	32	30	35	32	29	34	31	29	28				28
6	40	34	30	27	39	34	30	27	33	29	26	32	29	26	31	28	26	25				25
7	38	31	27	24	37	31	27	24	30	26	24	29	26	23	28	26	23	22				22
8	35	29	24	22	34	28	24	21	28	24	21	27	24	21	26	23	21	20				20
9	33	26	22	20	32	26	22	20	25	22	19	25	22	19	24	21	19	18				18
10	31	24	20	18	30	24	20	18	24	20	18	23	20	18	23	20	18	17				17

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

	0°	45°	90°
0°	21689	21689	21689
5°	21451	21367	21502
10°	21921	21169	20998
15°	21705	20868	20537
20°	22060	20214	20071
25°	20699	20011	19417
30°	19795	18998	18453
35°	19139	17679	18008
40°	18158	16443	17718
45°	16385	15122	15837
50°	14697	13518	12680
55°	13065	11450	10716
60°	11215	9262	7645
65°	9244	6973	3347
70°	7188	4382	345
75°	4489	2537	260
80°	291	970	194
85°	193	193	193



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	120.4	4.7	2.5
10°-20°	338.9	13.2	7.1
20°-30°	493.3	19.2	10.3
30°-40°	548.0	21.4	11.4
40°-50°	501.8	19.6	10.5
50°-60°	350.8	13.7	7.3
60°-70°	169.5	6.6	3.5
70°-80°	39.5	1.5	0.8
80°-90°	1.5	0.1	0.0
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	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°	952.6	37.2	19.8
0°-40°	1500.6	58.5	31.3
0°-60°	2353.2	91.8	49.0
0°-90°	2563.8	100.0	53.4
90°-120°	0.0	0.0	0.0
90°-150°	0.0	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	2563.8	100.0	53.4

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1288	1288	1288	1288	1288	
5°	1269	1266	1264	1270	1272	122
15°	1245	1221	1197	1165	1178	355
25°	1114	1091	1077	1052	1045	516
35°	931	882	860	859	876	581
45°	688	663	635	645	665	531
55°	445	408	390	360	365	398
65°	232	190	175	146	84	232
75°	69	55	39	6	4	71
85°	1	1	1	1	1	1
90°	0	0	0	0	0	0
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	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°	1288	1288	1288	1288	1288
2.5°	1287	1284	1284	1284	1285
5°	1269	1266	1264	1270	1272
7.5°	1281	1264	1245	1247	1251
10°	1282	1268	1238	1219	1228
12.5°	1264	1247	1226	1189	1204
15°	1245	1221	1197	1165	1178
17.5°	1250	1207	1164	1143	1150
20°	1231	1196	1128	1119	1120
22.5°	1180	1157	1104	1089	1085
25°	1114	1091	1077	1052	1045
27.5°	1065	1029	1033	1006	999
30°	1018	978	977	958	949
32.5°	973	928	914	904	911
35°	931	882	860	859	876
37.5°	886	835	803	813	848
40°	826	786	748	765	806
42.5°	761	727	692	708	747
45°	688	663	635	645	665
47.5°	617	593	577	572	571
50°	561	529	516	495	484
52.5°	499	472	453	420	413
55°	445	408	390	360	365
57.5°	392	355	332	307	309
60°	333	299	275	252	227
62.5°	277	244	220	197	140
65°	232	190	175	146	84
67.5°	190	153	130	100	26
70°	146	116	89	57	7
72.5°	104	85	61	22	6
75°	69	55	39	6	4
77.5°	25	26	21	3	3
80°	3	5	10	2	2
82.5°	1	2	2	2	1
85°	1	1	1	1	1
87.5°	0	0	1	1	0
90°	0	0	0	0	0
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°	0	0	0	0	0
125°	0	0	0	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)