

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: CORELITE

Report Number: P231399

Luminaire Tested: **HGL-S-FR-40L840-UNV-4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231399  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1708-204-1)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: HGL-S-FR-40L840-UNV-4  
Description: HUGO 4 FOOT LINEAR LED LUMINAIRE WITH FROSTED LENS  
Light Source: (168) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3834.9 lumens  
Efficiency: N/A  
Efficacy: 129.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.23 / 1.33  
Luminous Opening: Rectangular w/ Sides (W: 0.23' x L: 4' x H: 0.01')  
CIE Type: Direct

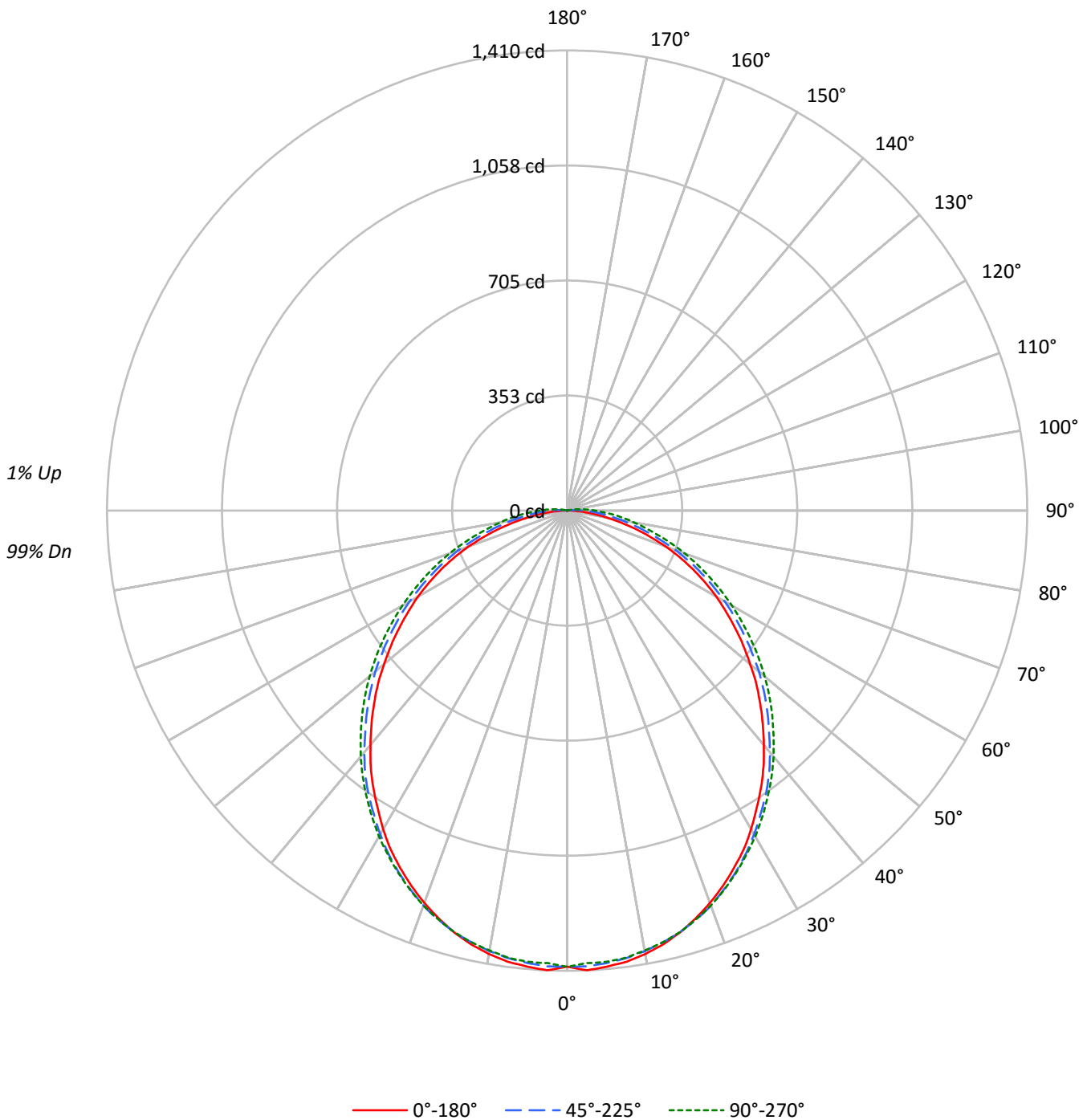
Input Watts (W): 29.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	82
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	55	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	50	44	40	38
7	65	51	43	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	33	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	27
10	53	40	32	27	52	39	32	27	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	16411	16411	16411
5°	16528	16355	16297
10°	16440	16251	16192
15°	16255	16110	16063
20°	15974	15907	15845
25°	15645	15599	15551
30°	15264	15246	15248
35°	14825	14878	14903
40°	14339	14423	14546
45°	13855	13940	14141
50°	13327	13487	13720
55°	12839	12932	13232
60°	12356	12421	12734
65°	11743	11792	12218
70°	10918	11126	11720
75°	9741	10241	11162
80°	8201	9655	11221
85°	6536	9912	12585



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.1	3.4
10°-20°	375.8	9.8
20°-30°	559.7	14.6
30°-40°	658.7	17.2
40°-50°	665.3	17.3
50°-60°	589.6	15.4
60°-70°	448.6	11.7
70°-80°	269.3	7.0
80°-90°	110.7	2.9
90°-100°	24.1	0.6
100°-110°	1.2	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°	1067.6	27.8
0°-40°	1726.3	45.0
0°-60°	2981.1	77.7
0°-90°	3809.7	99.3
90°-120°	25.2	0.7
90°-150°	25.2	0.7
90°-180°	25.0	0.7
0°-180°	3834.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1398	1398	1398	1398	1398	
5°	1402	1387	1392	1389	1388	133
15°	1338	1325	1337	1336	1337	377
25°	1209	1199	1222	1221	1225	557
35°	1036	1032	1062	1066	1071	648
45°	836	840	867	879	889	645
55°	629	638	661	678	687	563
65°	425	431	454	472	481	420
75°	217	226	253	279	286	230
85°	50	66	101	130	140	56
90°	1	21	50	76	85	3
95°	0	1	18	36	44	0
105°	1	0	0	0	1	1
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°	1397.6	1397.6	1397.6	1397.6	1397.6
2.5°	1409.8	1394.0	1397.6	1395.2	1387.9
5°	1402.5	1386.7	1391.5	1389.1	1387.9
7.5°	1394.0	1378.1	1383.0	1380.6	1381.8
10°	1379.4	1363.5	1370.8	1368.4	1368.4
12.5°	1361.1	1347.7	1355.0	1352.6	1355.0
15°	1338.0	1324.6	1336.8	1335.5	1336.8
17.5°	1310.0	1297.8	1314.8	1312.4	1313.6
20°	1279.5	1267.4	1288.1	1283.2	1288.1
22.5°	1245.4	1235.7	1256.4	1252.7	1257.6
25°	1208.9	1199.2	1222.3	1221.1	1224.7
27.5°	1171.2	1162.7	1185.8	1188.2	1189.4
30°	1127.4	1121.3	1145.6	1149.3	1152.9
32.5°	1081.1	1077.4	1103.0	1109.1	1112.7
35°	1036.0	1032.4	1061.6	1066.5	1071.4
37.5°	988.6	986.1	1016.6	1021.4	1028.7
40°	937.4	938.6	966.7	975.2	983.7
42.5°	887.5	890.0	915.5	927.7	936.2
45°	836.4	840.0	866.8	879.0	888.7
47.5°	786.5	790.1	816.9	830.3	840.0
50°	731.7	740.2	767.0	779.2	790.1
52.5°	680.6	689.1	713.4	729.2	739.0
55°	629.4	637.9	661.1	678.1	686.6
57.5°	577.1	589.2	609.9	627.0	635.5
60°	528.4	535.7	558.8	575.9	583.2
62.5°	476.0	483.3	505.2	525.9	530.8
65°	424.9	431.0	454.1	472.4	480.9
67.5°	372.5	379.8	403.0	422.5	431.0
70°	320.2	327.5	353.1	375.0	382.3
72.5°	266.6	275.1	300.7	326.3	334.8
75°	216.7	226.4	253.2	278.8	286.1
77.5°	168.0	180.2	209.4	236.2	245.9
80°	123.0	137.6	169.2	198.4	207.0
82.5°	84.0	99.8	132.7	163.1	174.1
85°	49.9	65.7	101.0	130.3	140.0
87.5°	21.9	39.0	73.0	101.0	109.6
90°	1.2	20.7	49.9	75.5	85.2
92.5°	0.0	8.5	31.7	53.6	63.3
95°	0.0	1.2	18.3	36.5	43.8
97.5°	0.0	0.0	8.5	21.9	28.0
100°	0.0	0.0	1.2	11.0	15.8
102.5°	1.2	0.0	0.0	2.4	6.1
105°	1.2	0.0	0.0	0.0	1.2
107.5°	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)