

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: P183539

Luminaire Tested: **VB-WS-4L40-1D-UNV-4-STD**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P183539
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26967)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: VB-WS-4L40-1D-UNV-4-STD
Description: CORELITE VERTECHS SUSPENDED DIRECT-INDIRECT LED LUMINAIRE, 4 FOOT.
WaveStream WITH FROSTED LENS. 65% UP / 35% DOWN.
Light Source: (336)4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6315.4 lumens
Efficiency: N/A
Efficacy: 99.1 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.48 / 1.47
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 3.58' x H: 0.21')
CIE Type: Semi-Indirect

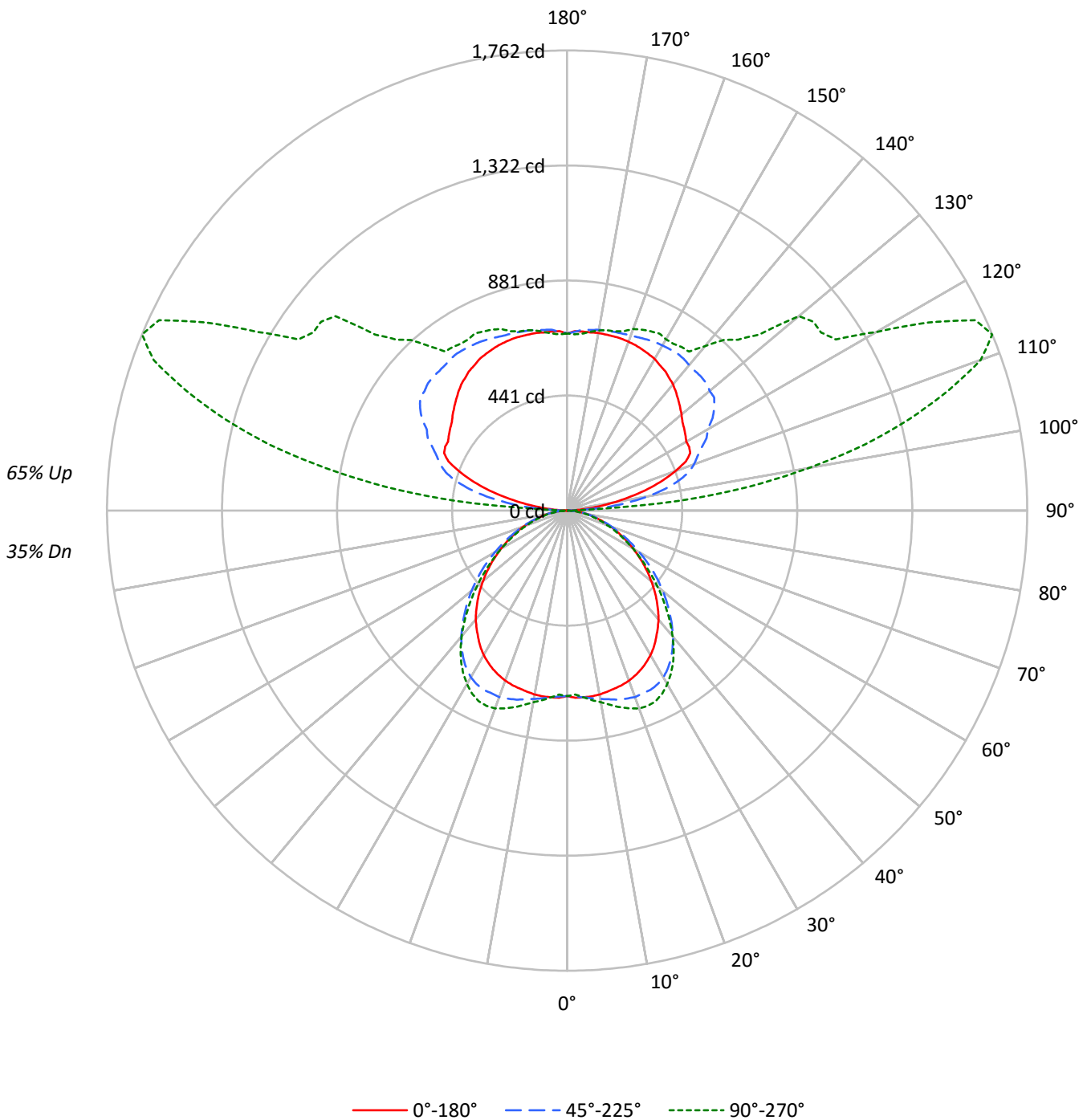
Input Watts (W): 63.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	104	104	104	104	94	94	94	94	75	75	75	58	58	58	42	42	42	35
1	94	90	86	83	85	82	78	76	66	63	61	51	49	48	37	36	36	29
2	86	79	73	68	77	71	66	62	57	54	51	45	42	40	33	31	30	25
3	78	69	62	56	71	63	57	52	51	46	43	39	36	34	29	27	26	21
4	72	61	53	48	64	56	49	44	45	40	36	35	32	29	26	24	22	18
5	66	54	46	41	59	49	43	37	40	35	31	31	28	25	23	21	19	16
6	60	49	41	35	54	44	37	32	36	31	27	28	25	22	21	19	17	14
7	56	44	36	31	50	40	33	28	33	27	24	26	22	19	19	17	15	12
8	52	40	32	27	47	36	29	25	30	25	21	23	20	17	18	15	13	11
9	48	36	29	24	43	33	26	22	27	22	19	21	18	15	16	14	12	10
10	45	33	26	21	40	30	24	20	25	20	17	20	16	14	15	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5688	5688	5688
5°	5740	5558	5502
10°	5758	5534	5518
15°	5759	5570	5626
20°	5783	5592	5720
25°	5770	5566	5645
30°	5713	5454	5372
35°	5580	5196	4982
40°	5427	4836	4483
45°	5192	4378	3928
50°	4902	3922	3376
55°	4595	3435	2852
60°	4250	2920	2384
65°	3920	2429	1926
70°	3548	1956	1514
75°	3146	1491	1146
80°	2661	1022	770
85°	2049	572	371



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.8	1.1
10°-20°	210.8	3.3
20°-30°	342.5	5.4
30°-40°	417.1	6.6
40°-50°	410.8	6.5
50°-60°	340.1	5.4
60°-70°	237.0	3.8
70°-80°	130.9	2.1
80°-90°	39.7	0.6
90°-100°	231.5	3.7
100°-110°	711.3	11.3
110°-120°	833.1	13.2
120°-130°	716.5	11.3
130°-140°	576.6	9.1
140°-150°	450.4	7.1
150°-160°	332.6	5.3
160°-170°	199.6	3.2
170°-180°	66.0	1.0
0°-30°	622.1	9.9
0°-40°	1039.2	16.5
0°-60°	1790.2	28.3
0°-90°	2197.8	34.8
90°-120°	1775.9	28.1
90°-150°	3519.4	55.7
90°-180°	4118.0	65.2
0°-180°	6315.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	710	710	710	710	710	
5°	718	710	718	718	718	68
15°	705	713	750	772	779	199
25°	670	693	757	794	804	309
35°	594	624	693	708	708	371
45°	485	515	554	552	539	373
55°	356	381	398	379	366	319
65°	233	247	247	233	223	230
75°	124	129	126	116	114	131
85°	37	40	37	32	30	38
90°	0	5	2	2	2	6
95°	64	84	151	381	430	79
105°	322	339	443	1128	1358	334
115°	520	530	567	1183	1725	501
125°	547	614	688	1019	1188	491
135°	601	636	725	836	925	465
145°	653	670	735	752	765	409
155°	680	685	722	750	757	315
165°	690	693	708	710	710	196
175°	688	688	695	690	680	66
180°	678	678	678	678	678	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	710.1	710.1	710.1	710.1	710.1
2.5°	717.5	710.1	712.6	712.6	705.2
5°	717.5	710.1	717.5	717.5	717.5
7.5°	717.5	712.6	725.0	729.9	732.4
10°	715.1	712.6	732.4	742.3	744.8
12.5°	710.1	712.6	739.8	757.1	762.1
15°	705.2	712.6	749.7	772.0	779.4
17.5°	700.2	710.1	754.7	784.3	794.2
20°	692.8	707.6	759.6	791.8	806.6
22.5°	682.9	700.2	757.1	794.2	809.1
25°	670.5	692.8	757.1	794.2	804.1
27.5°	655.7	680.4	749.7	784.3	789.3
30°	638.4	663.1	737.3	764.6	767.0
32.5°	618.6	648.3	717.5	737.3	739.8
35°	593.8	623.5	692.8	707.6	707.6
37.5°	569.1	601.2	663.1	670.5	670.5
40°	544.3	574.0	630.9	633.4	628.5
42.5°	514.6	544.3	593.8	593.8	583.9
45°	485.0	514.6	554.2	551.8	539.4
47.5°	452.8	482.5	517.1	507.2	494.9
50°	420.6	450.3	477.5	462.7	450.3
52.5°	388.5	418.2	437.9	420.6	408.3
55°	356.3	381.0	398.4	378.6	366.2
57.5°	324.1	346.4	358.8	339.0	326.6
60°	292.0	311.8	319.2	301.9	292.0
62.5°	262.3	279.6	282.1	264.7	254.9
65°	232.6	247.4	247.4	232.6	222.7
67.5°	202.9	215.3	212.8	200.4	193.0
70°	175.7	185.6	183.1	170.7	163.3
72.5°	148.5	155.9	153.4	143.5	138.6
75°	123.7	128.7	126.2	116.3	113.8
77.5°	99.0	103.9	101.4	94.0	89.1
80°	76.7	81.7	76.7	71.8	69.3
82.5°	54.4	59.4	56.9	52.0	49.5
85°	37.1	39.6	37.1	32.2	29.7
87.5°	17.3	19.8	17.3	12.4	12.4
90°	0.0	4.9	2.5	2.5	2.5
92.5°	24.7	34.6	47.0	79.2	54.4
95°	64.3	84.1	150.9	381.0	430.5
97.5°	121.2	141.0	235.1	606.2	702.7
100°	183.1	207.8	314.2	799.2	940.2
102.5°	249.9	274.6	383.5	974.9	1167.9
105°	321.7	339.0	442.9	1128.3	1358.4
107.5°	383.5	398.4	487.4	1242.1	1531.6
110°	440.4	450.3	517.1	1289.1	1685.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	492.4	492.4	539.4	1259.4	1761.7
115°	519.6	529.5	566.6	1182.7	1724.6
117.5°	527.0	556.7	601.2	1123.3	1558.8
120°	527.0	591.4	621.0	1086.2	1368.3
122.5°	536.9	613.6	660.6	1044.1	1219.8
125°	546.8	613.6	687.8	1019.4	1187.7
127.5°	556.7	606.2	710.1	1009.5	1187.7
130°	571.6	613.6	712.6	947.6	1158.0
132.5°	586.4	626.0	722.5	848.7	997.1
135°	601.2	635.9	725.0	836.3	925.4
137.5°	616.1	643.3	725.0	821.5	885.8
140°	630.9	653.2	727.4	776.9	821.5
142.5°	640.8	663.1	732.4	754.7	767.0
145°	653.2	670.5	734.9	752.2	764.6
147.5°	660.6	675.5	732.4	752.2	757.1
150°	670.5	680.4	729.9	759.6	757.1
152.5°	675.5	682.9	727.4	754.7	764.6
155°	680.4	685.4	722.5	749.7	757.1
157.5°	685.4	687.8	717.5	742.3	749.7
160°	687.8	690.3	712.6	732.4	739.8
162.5°	690.3	690.3	710.1	715.1	720.0
165°	690.3	692.8	707.6	710.1	710.1
167.5°	690.3	695.3	705.2	707.6	707.6
170°	690.3	695.3	702.7	700.2	700.2
172.5°	687.8	690.3	697.7	692.8	690.3
175°	687.8	687.8	695.3	690.3	680.4
177.5°	687.8	682.9	685.4	680.4	675.5
180°	678.0	678.0	678.0	678.0	678.0

(END OF REPORT)