

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: P183540

Luminaire Tested: **VB-WS-5L40-1D-UNV-4-STD**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P183540  
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-5L40-1D-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: 7499.2 lumens  
Efficiency: N/A  
Efficacy: 94.7 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 1.48 / 1.48  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 3.58' x H: 0.21')  
CIE Type: Semi-Indirect

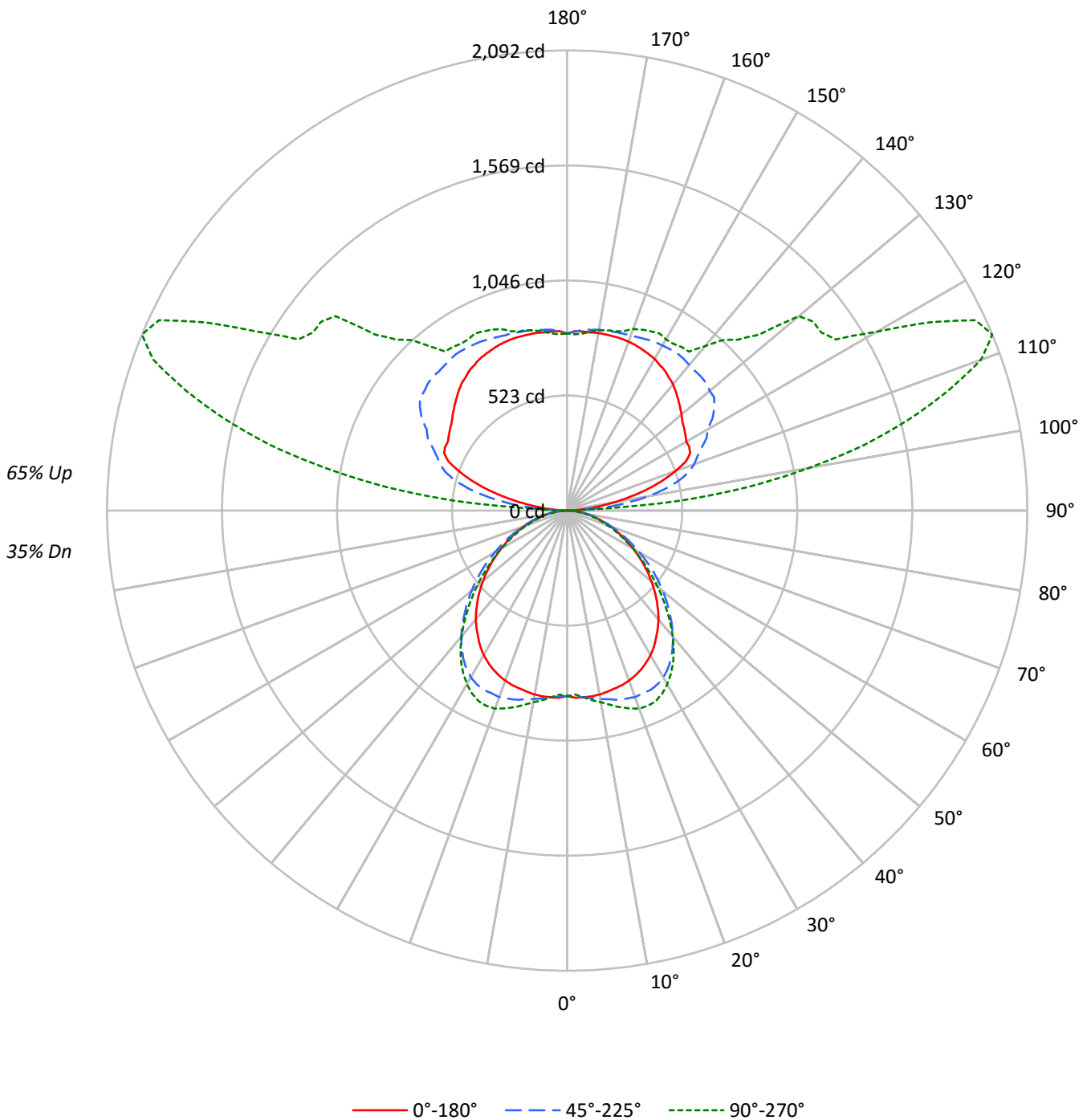
Input Watts (W): 79.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P183540

CATALOG NUMBER: VB-WS-5L40-1D-UNV-4-STD

### Luminous Intensity Polar Plot





TEST NUMBER: P183540

CATALOG NUMBER: VB-WS-5L40-1D-UNV-4-STD

**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°	6754	6754	6754
5°	6816	6600	6533
10°	6837	6571	6552
15°	6837	6614	6681
20°	6868	6640	6792
25°	6852	6609	6704
30°	6784	6476	6379
35°	6625	6170	5916
40°	6445	5743	5323
45°	6166	5199	4665
50°	5821	4658	4009
55°	5456	4079	3386
60°	5046	3467	2831
65°	4655	2885	2287
70°	4213	2323	1798
75°	3736	1770	1362
80°	3161	1214	915
85°	2435	680	441



TEST NUMBER: P183540

CATALOG NUMBER: VB-WS-5L40-1D-UNV-4-STD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.7	1.1
10°-20°	250.4	3.3
20°-30°	406.7	5.4
30°-40°	495.3	6.6
40°-50°	487.8	6.5
50°-60°	403.9	5.4
60°-70°	281.4	3.8
70°-80°	155.4	2.1
80°-90°	47.2	0.6
90°-100°	274.9	3.7
100°-110°	844.6	11.3
110°-120°	989.3	13.2
120°-130°	850.8	11.3
130°-140°	684.6	9.1
140°-150°	534.9	7.1
150°-160°	394.9	5.3
160°-170°	237.1	3.2
170°-180°	78.4	1.0
0°-30°	738.7	9.9
0°-40°	1234.0	16.5
0°-60°	2125.7	28.3
0°-90°	2609.7	34.8
90°-120°	2108.8	28.1
90°-150°	4179.1	55.7
90°-180°	4889.0	65.2
0°-180°	7499.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	843	843	843	843	843	
5°	852	843	852	852	852	81
15°	837	846	890	917	926	237
25°	796	823	899	943	955	367
35°	705	740	823	840	840	441
45°	576	611	658	655	640	443
55°	423	452	473	450	435	378
65°	276	294	294	276	264	274
75°	147	153	150	138	135	156
85°	44	47	44	38	35	45
90°	0	6	3	3	3	7
95°	76	100	179	452	511	93
105°	382	402	526	1340	1613	397
115°	617	629	673	1404	2048	595
125°	649	729	817	1210	1410	583
135°	714	755	861	993	1099	552
145°	776	796	873	893	908	485
155°	808	814	858	890	899	374
165°	820	823	840	843	843	232
175°	817	817	826	820	808	78
180°	805	805	805	805	805	



TEST NUMBER: P183540

CATALOG NUMBER: VB-WS-5L40-1D-UNV-4-STD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	843.2	843.2	843.2	843.2	843.2
2.5°	852.0	843.2	846.2	846.2	837.3
5°	852.0	843.2	852.0	852.0	852.0
7.5°	852.0	846.2	860.9	866.7	869.7
10°	849.1	846.2	869.7	881.4	884.4
12.5°	843.2	846.2	878.5	899.0	904.9
15°	837.3	846.2	890.2	916.7	925.5
17.5°	831.5	843.2	896.1	931.4	943.1
20°	822.7	840.3	902.0	940.2	957.8
22.5°	810.9	831.5	899.0	943.1	960.7
25°	796.2	822.7	899.0	943.1	954.9
27.5°	778.6	808.0	890.2	931.4	937.2
30°	758.0	787.4	875.5	907.9	910.8
32.5°	734.5	769.8	852.0	875.5	878.5
35°	705.1	740.4	822.7	840.3	840.3
37.5°	675.8	714.0	787.4	796.2	796.2
40°	646.4	681.6	749.2	752.1	746.3
42.5°	611.1	646.4	705.1	705.1	693.4
45°	575.9	611.1	658.1	655.2	640.5
47.5°	537.7	572.9	614.1	602.3	587.6
50°	499.5	534.7	567.0	549.4	534.7
52.5°	461.3	496.5	520.0	499.5	484.8
55°	423.1	452.5	473.0	449.5	434.8
57.5°	384.9	411.3	426.0	402.5	387.8
60°	346.7	370.2	379.0	358.4	346.7
62.5°	311.4	332.0	334.9	314.4	302.6
65°	276.2	293.8	293.8	276.2	264.4
67.5°	240.9	255.6	252.7	238.0	229.2
70°	208.6	220.4	217.4	202.7	193.9
72.5°	176.3	185.1	182.2	170.4	164.5
75°	146.9	152.8	149.8	138.1	135.2
77.5°	117.5	123.4	120.5	111.6	105.8
80°	91.1	97.0	91.1	85.2	82.3
82.5°	64.6	70.5	67.6	61.7	58.8
85°	44.1	47.0	44.1	38.2	35.3
87.5°	20.6	23.5	20.6	14.7	14.7
90°	0.0	5.9	2.9	2.9	2.9
92.5°	29.4	41.1	55.8	94.0	64.6
95°	76.4	99.9	179.2	452.5	511.2
97.5°	144.0	167.5	279.1	719.8	834.4
100°	217.4	246.8	373.1	949.0	1116.5
102.5°	296.7	326.1	455.4	1157.6	1386.8
105°	381.9	402.5	525.9	1339.8	1613.0
107.5°	455.4	473.0	578.8	1474.9	1818.7
110°	523.0	534.7	614.1	1530.7	2000.8



TEST NUMBER: P183540

CATALOG NUMBER: VB-WS-5L40-1D-UNV-4-STD

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	584.7	584.7	640.5	1495.5	2091.9
115°	617.0	628.7	672.8	1404.4	2047.8
117.5°	625.8	661.1	714.0	1333.9	1851.0
120°	625.8	702.2	737.5	1289.8	1624.8
122.5°	637.6	728.6	784.5	1239.9	1448.5
125°	649.3	728.6	816.8	1210.5	1410.3
127.5°	661.1	719.8	843.2	1198.7	1410.3
130°	678.7	728.6	846.2	1125.3	1375.0
132.5°	696.3	743.3	857.9	1007.8	1184.0
135°	714.0	755.1	860.9	993.1	1098.8
137.5°	731.6	763.9	860.9	975.4	1051.8
140°	749.2	775.7	863.8	922.6	975.4
142.5°	761.0	787.4	869.7	896.1	910.8
145°	775.7	796.2	872.6	893.2	907.9
147.5°	784.5	802.1	869.7	893.2	899.0
150°	796.2	808.0	866.7	902.0	899.0
152.5°	802.1	810.9	863.8	896.1	907.9
155°	808.0	813.8	857.9	890.2	899.0
157.5°	813.8	816.8	852.0	881.4	890.2
160°	816.8	819.7	846.2	869.7	878.5
162.5°	819.7	819.7	843.2	849.1	855.0
165°	819.7	822.7	840.3	843.2	843.2
167.5°	819.7	825.6	837.3	840.3	840.3
170°	819.7	825.6	834.4	831.5	831.5
172.5°	816.8	819.7	828.5	822.7	819.7
175°	816.8	816.8	825.6	819.7	808.0
177.5°	816.8	810.9	813.8	808.0	802.1
180°	805.0	805.0	805.0	805.0	805.0

(END OF REPORT)