

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: P183534

Luminaire Tested: **VB-WS-4L35-1D-UNV-4-STD**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P183534
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-4L35-1D-UNV-4-STD
Description: CORELITE VERTECHS SUSPENDED DIRECT-INDIRECT LED LUMINAIRE, 4 FOOT.
WaveStream WITH FROSTED LENS. 65% UP / 35% DOWN.
Light Source: (336)3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6190.5 lumens
Efficiency: N/A
Efficacy: 97.2 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

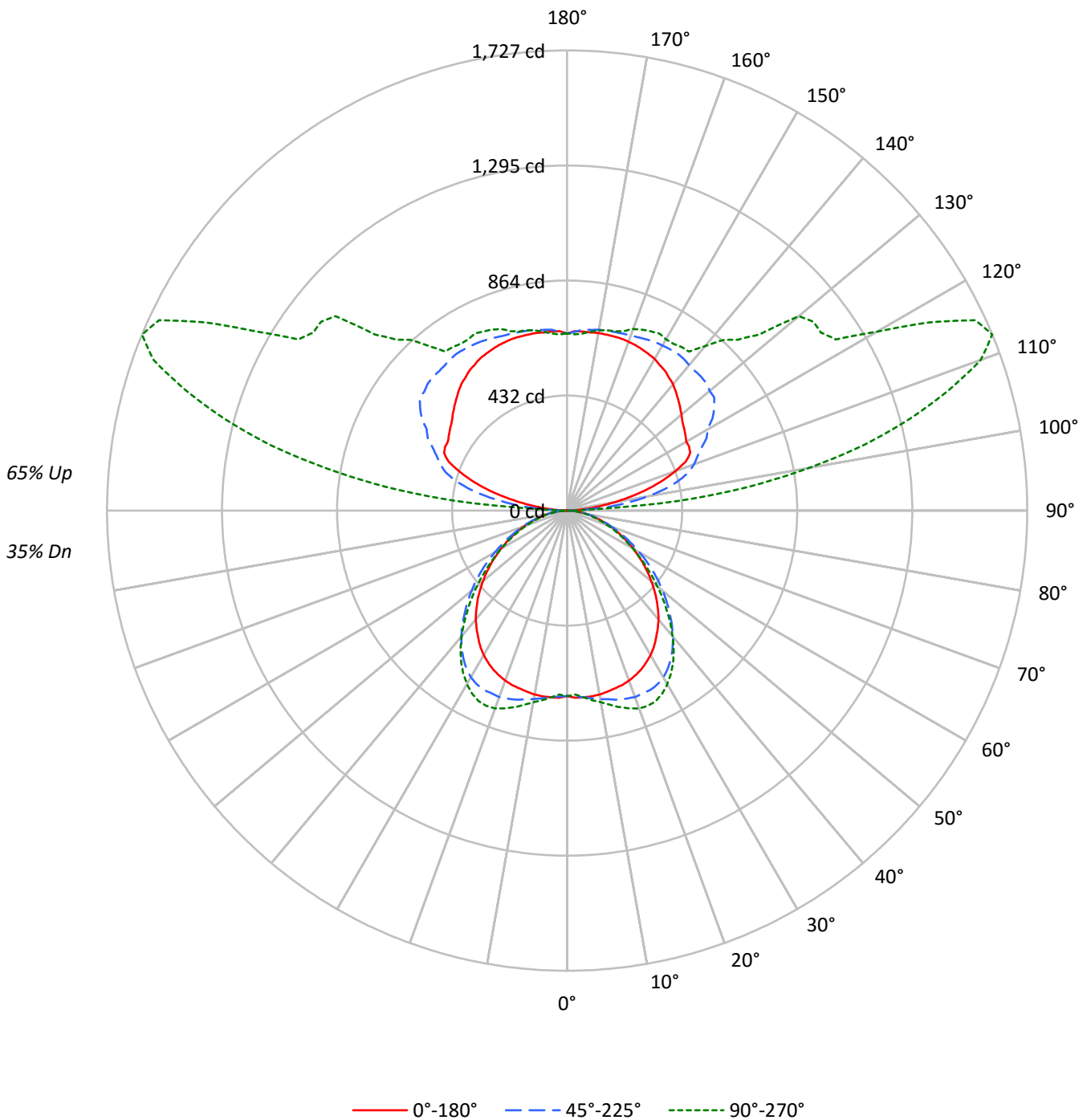
Input Watts (W): 63.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P183534

CATALOG NUMBER: VB-WS-4L35-1D-UNV-4-STD

Luminous Intensity Polar Plot





TEST NUMBER: P183534

CATALOG NUMBER: VB-WS-4L35-1D-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°	5576	5576	5576
5°	5627	5448	5393
10°	5643	5424	5408
15°	5644	5460	5515
20°	5669	5482	5606
25°	5656	5455	5533
30°	5600	5346	5265
35°	5470	5093	4883
40°	5320	4741	4394
45°	5090	4292	3851
50°	4805	3845	3310
55°	4503	3367	2795
60°	4166	2862	2337
65°	3843	2381	1888
70°	3478	1918	1484
75°	3085	1462	1124
80°	2609	1002	755
85°	2010	561	364



TEST NUMBER: P183534

CATALOG NUMBER: VB-WS-4L35-1D-UNV-4-STD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.4	1.1
10°-20°	206.7	3.3
20°-30°	335.7	5.4
30°-40°	408.8	6.6
40°-50°	402.7	6.5
50°-60°	333.4	5.4
60°-70°	232.3	3.8
70°-80°	128.3	2.1
80°-90°	38.9	0.6
90°-100°	226.9	3.7
100°-110°	697.2	11.3
110°-120°	816.6	13.2
120°-130°	702.3	11.3
130°-140°	565.2	9.1
140°-150°	441.5	7.1
150°-160°	326.0	5.3
160°-170°	195.7	3.2
170°-180°	64.7	1.0
0°-30°	609.8	9.9
0°-40°	1018.6	16.5
0°-60°	1754.8	28.3
0°-90°	2154.3	34.8
90°-120°	1740.8	28.1
90°-150°	3449.7	55.7
90°-180°	4036.0	65.2
0°-180°	6190.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	696	696	696	696	696	
5°	703	696	703	703	703	67
15°	691	698	735	757	764	196
25°	657	679	742	778	788	303
35°	582	611	679	694	694	364
45°	475	504	543	541	529	366
55°	349	374	390	371	359	312
65°	228	242	242	228	218	226
75°	121	126	124	114	112	129
85°	36	39	36	32	29	37
90°	0	5	2	2	2	6
95°	63	82	148	374	422	77
105°	315	332	434	1106	1332	327
115°	509	519	555	1159	1690	492
125°	536	602	674	999	1164	481
135°	589	623	711	820	907	456
145°	640	657	720	737	749	401
155°	667	672	708	735	742	308
165°	677	679	694	696	696	192
175°	674	674	682	677	667	64
180°	664	664	664	664	664	



TEST NUMBER: P183534

CATALOG NUMBER: VB-WS-4L35-1D-UNV-4-STD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	696.1	696.1	696.1	696.1	696.1
2.5°	703.3	696.1	698.5	698.5	691.2
5°	703.3	696.1	703.3	703.3	703.3
7.5°	703.3	698.5	710.6	715.5	717.9
10°	700.9	698.5	717.9	727.6	730.0
12.5°	696.1	698.5	725.2	742.1	747.0
15°	691.2	698.5	734.9	756.7	764.0
17.5°	686.4	696.1	739.7	768.8	778.5
20°	679.1	693.6	744.6	776.1	790.6
22.5°	669.4	686.4	742.1	778.5	793.1
25°	657.3	679.1	742.1	778.5	788.2
27.5°	642.7	667.0	734.9	768.8	773.7
30°	625.7	650.0	722.7	749.4	751.8
32.5°	606.3	635.4	703.3	722.7	725.2
35°	582.1	611.2	679.1	693.6	693.6
37.5°	557.8	589.3	650.0	657.3	657.3
40°	533.6	562.7	618.5	620.9	616.0
42.5°	504.5	533.6	582.1	582.1	572.4
45°	475.4	504.5	543.3	540.8	528.7
47.5°	443.8	472.9	506.9	497.2	485.1
50°	412.3	441.4	468.1	453.5	441.4
52.5°	380.8	409.9	429.3	412.3	400.2
55°	349.2	373.5	390.5	371.1	358.9
57.5°	317.7	339.5	351.7	332.3	320.1
60°	286.2	305.6	312.9	295.9	286.2
62.5°	257.1	274.1	276.5	259.5	249.8
65°	228.0	242.5	242.5	228.0	218.3
67.5°	198.9	211.0	208.6	196.4	189.2
70°	172.2	181.9	179.5	167.3	160.1
72.5°	145.5	152.8	150.4	140.7	135.8
75°	121.3	126.1	123.7	114.0	111.6
77.5°	97.0	101.9	99.4	92.2	87.3
80°	75.2	80.0	75.2	70.3	67.9
82.5°	53.4	58.2	55.8	50.9	48.5
85°	36.4	38.8	36.4	31.5	29.1
87.5°	17.0	19.4	17.0	12.1	12.1
90°	0.0	4.9	2.4	2.4	2.4
92.5°	24.3	34.0	46.1	77.6	53.4
95°	63.1	82.5	147.9	373.5	422.0
97.5°	118.8	138.2	230.4	594.2	688.8
100°	179.5	203.7	308.0	783.4	921.6
102.5°	245.0	269.2	375.9	955.6	1144.7
105°	315.3	332.3	434.1	1105.9	1331.5
107.5°	375.9	390.5	477.8	1217.5	1501.3
110°	431.7	441.4	506.9	1263.6	1651.6



TEST NUMBER: P183534

CATALOG NUMBER: VB-WS-4L35-1D-UNV-4-STD

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	482.6	482.6	528.7	1234.5	1726.8
115°	509.3	519.0	555.4	1159.3	1690.4
117.5°	516.6	545.7	589.3	1101.1	1527.9
120°	516.6	579.6	608.8	1064.7	1341.2
122.5°	526.3	601.5	647.6	1023.5	1195.7
125°	536.0	601.5	674.2	999.2	1164.1
127.5°	545.7	594.2	696.1	989.5	1164.1
130°	560.2	601.5	698.5	928.9	1135.0
132.5°	574.8	613.6	708.2	831.9	977.4
135°	589.3	623.3	710.6	819.8	907.1
137.5°	603.9	630.6	710.6	805.2	868.3
140°	618.5	640.3	713.0	761.5	805.2
142.5°	628.2	650.0	717.9	739.7	751.8
145°	640.3	657.3	720.3	737.3	749.4
147.5°	647.6	662.1	717.9	737.3	742.1
150°	657.3	667.0	715.5	744.6	742.1
152.5°	662.1	669.4	713.0	739.7	749.4
155°	667.0	671.8	708.2	734.9	742.1
157.5°	671.8	674.2	703.3	727.6	734.9
160°	674.2	676.7	698.5	717.9	725.2
162.5°	676.7	676.7	696.1	700.9	705.8
165°	676.7	679.1	693.6	696.1	696.1
167.5°	676.7	681.5	691.2	693.6	693.6
170°	676.7	681.5	688.8	686.4	686.4
172.5°	674.2	676.7	683.9	679.1	676.7
175°	674.2	674.2	681.5	676.7	667.0
177.5°	674.2	669.4	671.8	667.0	662.1
180°	664.5	664.5	664.5	664.5	664.5

(END OF REPORT)