

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: P183529

Luminaire Tested: **VB-WS-4L30-1D-UNV-4-STD**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P183529  
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-4L30-1D-UNV-4-STD  
Description: CORELITE VERTECHS SUSPENDED DIRECT-INDIRECT LED LUMINAIRE, 4 FOOT.  
WaveStream WITH FROSTED LENS. 65% UP / 35% DOWN.  
Light Source: (336)3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5952.3 lumens  
Efficiency: N/A  
Efficacy: 93.4 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

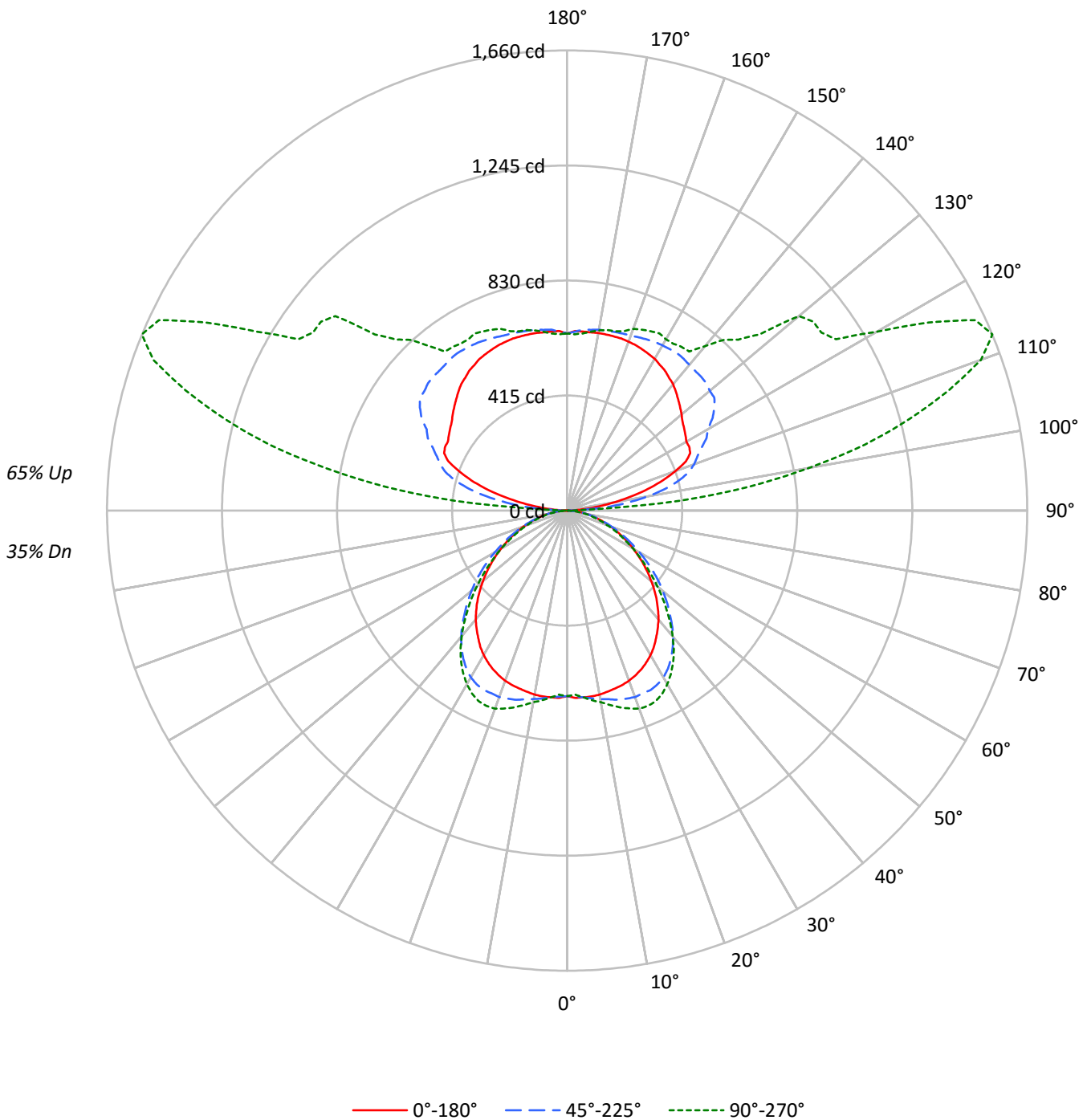
Input Watts (W): 63.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P183529

CATALOG NUMBER: VB-WS-4L30-1D-UNV-4-STD

### Luminous Intensity Polar Plot





TEST NUMBER: P183529

CATALOG NUMBER: VB-WS-4L30-1D-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°	5361	5361	5361
5°	5411	5239	5186
10°	5427	5216	5200
15°	5427	5250	5303
20°	5451	5270	5391
25°	5439	5246	5321
30°	5385	5140	5063
35°	5259	4898	4696
40°	5115	4559	4225
45°	4894	4127	3703
50°	4620	3697	3182
55°	4330	3238	2688
60°	4006	2751	2247
65°	3694	2290	1816
70°	3344	1844	1427
75°	2965	1405	1081
80°	2508	964	726
85°	1933	540	350



TEST NUMBER: P183529

CATALOG NUMBER: VB-WS-4L30-1D-UNV-4-STD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.8	1.1
10°-20°	198.7	3.3
20°-30°	322.8	5.4
30°-40°	393.1	6.6
40°-50°	387.2	6.5
50°-60°	320.6	5.4
60°-70°	223.4	3.8
70°-80°	123.4	2.1
80°-90°	37.4	0.6
90°-100°	218.2	3.7
100°-110°	670.4	11.3
110°-120°	785.2	13.2
120°-130°	675.3	11.3
130°-140°	543.4	9.1
140°-150°	424.5	7.1
150°-160°	313.5	5.3
160°-170°	188.2	3.2
170°-180°	62.2	1.0
0°-30°	586.4	9.9
0°-40°	979.5	16.5
0°-60°	1687.3	28.3
0°-90°	2071.4	34.8
90°-120°	1673.8	28.1
90°-150°	3317.0	55.7
90°-180°	3881.0	65.2
0°-180°	5952.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	669	669	669	669	669	
5°	676	669	676	676	676	64
15°	665	672	707	728	735	188
25°	632	653	714	749	758	291
35°	560	588	653	667	667	350
45°	457	485	522	520	508	352
55°	336	359	376	357	345	300
65°	219	233	233	219	210	217
75°	117	121	119	110	107	124
85°	35	37	35	30	28	36
90°	0	5	2	2	2	5
95°	61	79	142	359	406	74
105°	303	320	417	1063	1280	315
115°	490	499	534	1115	1625	473
125°	515	578	648	961	1119	463
135°	567	599	683	788	872	438
145°	616	632	693	709	721	385
155°	641	646	681	707	714	296
165°	651	653	667	669	669	184
175°	648	648	655	651	641	62
180°	639	639	639	639	639	



TEST NUMBER: P183529

CATALOG NUMBER: VB-WS-4L30-1D-UNV-4-STD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	669.3	669.3	669.3	669.3	669.3
2.5°	676.3	669.3	671.6	671.6	664.6
5°	676.3	669.3	676.3	676.3	676.3
7.5°	676.3	671.6	683.3	687.9	690.3
10°	674.0	671.6	690.3	699.6	701.9
12.5°	669.3	671.6	697.3	713.6	718.3
15°	664.6	671.6	706.6	727.6	734.6
17.5°	660.0	669.3	711.3	739.3	748.6
20°	653.0	667.0	715.9	746.2	760.2
22.5°	643.6	660.0	713.6	748.6	762.6
25°	632.0	653.0	713.6	748.6	757.9
27.5°	618.0	641.3	706.6	739.3	743.9
30°	601.7	625.0	694.9	720.6	722.9
32.5°	583.0	611.0	676.3	694.9	697.3
35°	559.7	587.7	653.0	667.0	667.0
37.5°	536.4	566.7	625.0	632.0	632.0
40°	513.0	541.0	594.7	597.0	592.3
42.5°	485.1	513.0	559.7	559.7	550.4
45°	457.1	485.1	522.4	520.0	508.4
47.5°	426.8	454.7	487.4	478.1	466.4
50°	396.4	424.4	450.1	436.1	424.4
52.5°	366.1	394.1	412.8	396.4	384.8
55°	335.8	359.1	375.5	356.8	345.1
57.5°	305.5	326.5	338.1	319.5	307.8
60°	275.2	293.8	300.8	284.5	275.2
62.5°	247.2	263.5	265.9	249.5	240.2
65°	219.2	233.2	233.2	219.2	209.9
67.5°	191.2	202.9	200.6	188.9	181.9
70°	165.6	174.9	172.6	160.9	153.9
72.5°	139.9	146.9	144.6	135.3	130.6
75°	116.6	121.3	118.9	109.6	107.3
77.5°	93.3	97.9	95.6	88.6	84.0
80°	72.3	77.0	72.3	67.6	65.3
82.5°	51.3	56.0	53.6	49.0	46.6
85°	35.0	37.3	35.0	30.3	28.0
87.5°	16.3	18.7	16.3	11.7	11.7
90°	0.0	4.7	2.3	2.3	2.3
92.5°	23.3	32.6	44.3	74.6	51.3
95°	60.6	79.3	142.3	359.1	405.8
97.5°	114.3	132.9	221.5	571.3	662.3
100°	172.6	195.9	296.2	753.2	886.2
102.5°	235.5	258.9	361.5	918.8	1100.7
105°	303.2	319.5	417.4	1063.4	1280.3
107.5°	361.5	375.5	459.4	1170.7	1443.5
110°	415.1	424.4	487.4	1215.0	1588.1



TEST NUMBER: P183529

CATALOG NUMBER: VB-WS-4L30-1D-UNV-4-STD

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	464.1	464.1	508.4	1187.0	1660.4
115°	489.7	499.1	534.0	1114.7	1625.4
117.5°	496.7	524.7	566.7	1058.7	1469.2
120°	496.7	557.4	585.3	1023.8	1289.6
122.5°	506.0	578.3	622.6	984.1	1149.7
125°	515.4	578.3	648.3	960.8	1119.4
127.5°	524.7	571.3	669.3	951.5	1119.4
130°	538.7	578.3	671.6	893.2	1091.4
132.5°	552.7	590.0	680.9	799.9	939.8
135°	566.7	599.3	683.3	788.2	872.2
137.5°	580.7	606.3	683.3	774.2	834.9
140°	594.7	615.7	685.6	732.3	774.2
142.5°	604.0	625.0	690.3	711.3	722.9
145°	615.7	632.0	692.6	708.9	720.6
147.5°	622.6	636.6	690.3	708.9	713.6
150°	632.0	641.3	687.9	715.9	713.6
152.5°	636.6	643.6	685.6	711.3	720.6
155°	641.3	646.0	680.9	706.6	713.6
157.5°	646.0	648.3	676.3	699.6	706.6
160°	648.3	650.6	671.6	690.3	697.3
162.5°	650.6	650.6	669.3	674.0	678.6
165°	650.6	653.0	667.0	669.3	669.3
167.5°	650.6	655.3	664.6	667.0	667.0
170°	650.6	655.3	662.3	660.0	660.0
172.5°	648.3	650.6	657.6	653.0	650.6
175°	648.3	648.3	655.3	650.6	641.3
177.5°	648.3	643.6	646.0	641.3	636.6
180°	639.0	639.0	639.0	639.0	639.0

(END OF REPORT)