

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: PORTFOLIO

Report Number: P250177

Luminaire Tested: **LSR8B90D010 EC8B90940 8LBM0WH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P250177  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13942)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LSR8B90D010 EC8B90940 8LBM0WH  
Description: PORTFOLIO 8 INCH MEDIUM DISTRIBUTION 55 DEG CUTOFF RECESSED  
DOWNLIGHT- CYLINDEC  
90 CRI 4000 CCT WITH WHEAT TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8422.0 lumens  
Efficiency: N/A  
Efficacy: 97.8 lumens/watt  
Spacing Criteria (0/90/45): 0.84 / 0.8 / 0.85  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

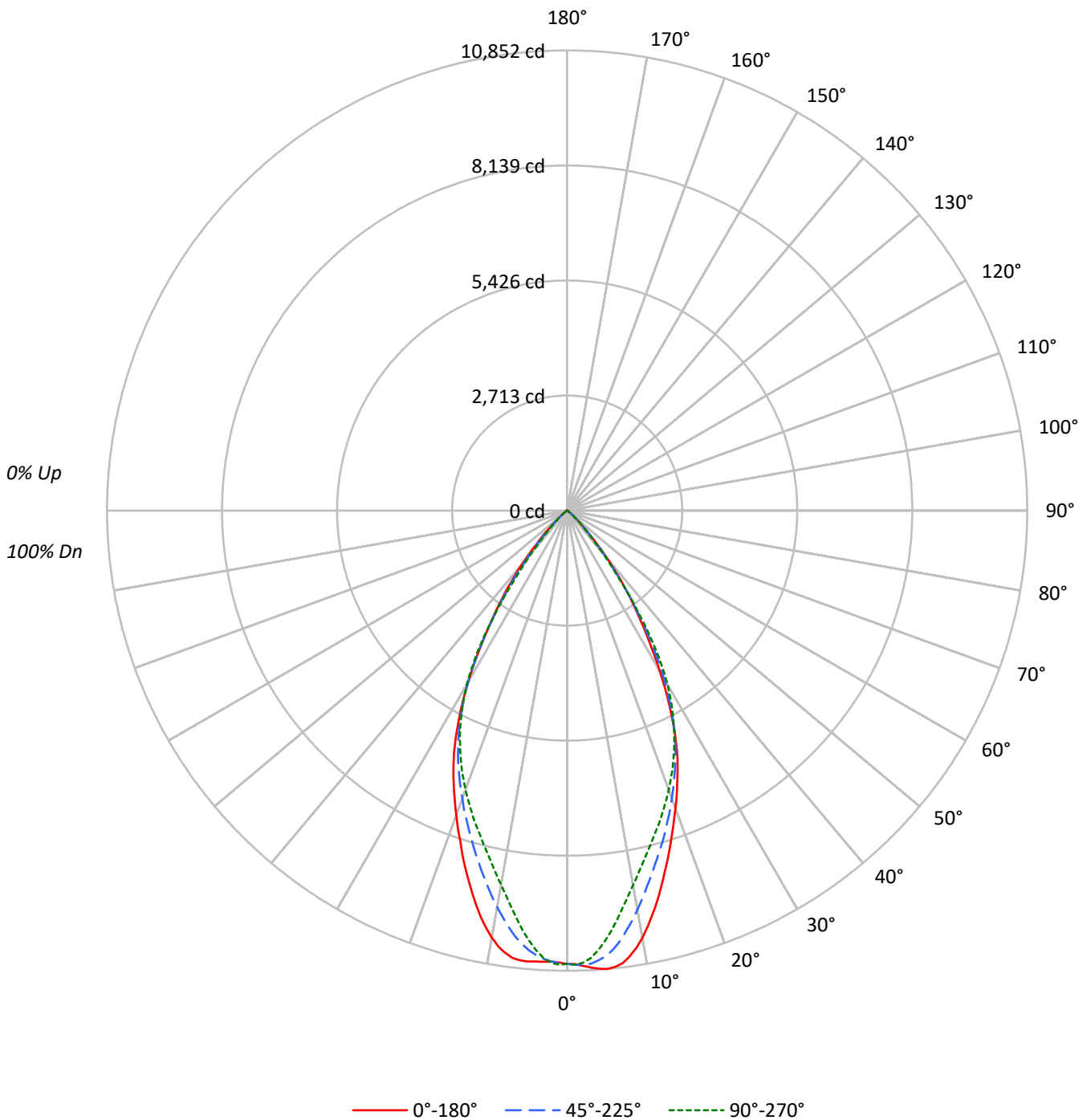
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P250177

CATALOG NUMBER: LSR8B90D010 EC8B90940 8LBM0WH

### Luminous Intensity Polar Plot





TEST NUMBER: P250177

CATALOG NUMBER: LSR8B90D010 EC8B90940 8LBM0WH

**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	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100	100		
1	114	111	108	106	111	109	107	105	105	103	101	101	100	98	98	97	96	94	94	94	94	94	94	94		
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87	87	87	87	87	87	87		
3	103	97	92	88	101	95	91	87	93	89	86	90	87	84	88	85	83	81	81	81	81	81	81	81		
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	77	76	76	76	76	76	76	76		
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71	71	71	71	71	71	71		
6	88	80	74	69	87	79	73	69	77	72	69	76	72	68	75	71	68	66	66	66	66	66	66	66		
7	84	75	69	65	83	74	69	65	73	68	64	72	67	64	71	67	64	62	62	62	62	62	62	62		
8	80	71	65	61	79	70	64	61	69	64	60	68	63	60	67	63	60	58	58	58	58	58	58	58		
9	76	67	61	57	75	66	61	57	65	60	57	64	60	56	64	59	56	55	55	55	55	55	55	55		
10	73	63	57	54	72	63	57	54	62	57	53	61	56	53	60	56	53	52	52	52	52	52	52	52		

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

	0°	90°	180°
0°	329588	329588	329588
5°	335914	315562	330441
10°	320269	280725	320187
15°	282809	253193	287620
20°	245081	229816	250880
25°	207074	203536	214675
30°	155633	168498	166276
35°	104184	110151	112989
40°	58368	50104	66946
45°	23457	20623	27879
50°	8103	7853	9599
55°	2236	2656	2516
60°	1283	1603	1443
65°	1138	949	759
70°	0	703	469
75°	0	0	0
80°	0	0	462
85°	0	0	0



TEST NUMBER: P250177

CATALOG NUMBER: LSR8B90D010 EC8B90940 8LBM0WH

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	970.3	11.5
10°-20°	2346.8	27.9
20°-30°	2750.5	32.7
30°-40°	1809.7	21.5
40°-50°	472.2	5.6
50°-60°	58.1	0.7
60°-70°	12.1	0.1
70°-80°	2.2	0.0
80°-90°	0.1	0.0
90°-100°	0.0	0.0
100°-110°	0.0	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°	6067.6	72.0
0°-40°	7877.3	93.5
0°-60°	8407.6	99.8
0°-90°	8422.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8422.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	10688	10688	10688	10688	10688	
5°	10852	10543	10194	10405	10675	###
15°	8859	8357	7931	8357	9010	2469
25°	6086	6026	5982	6084	6310	2744
35°	2768	2830	2926	2955	3002	1733
45°	538	507	473	548	639	482
55°	42	44	49	49	47	55
65°	16	13	13	10	10	11
75°	0	3	0	0	0	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P250177

CATALOG NUMBER: LSR8B90D010 EC8B90940 8LBM0WH

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	10688.3	10688.3	10688.3	10688.3	10688.3	10688.3	10688.3	10688.3	10688.3
1°	10696.0	10711.7	10716.8	10732.5	10709.1	10693.5	10672.7	10657.1	10659.7
2°	10742.8	10750.6	10722.0	10711.7	10670.1	10657.1	10641.5	10638.9	10641.5
3°	10792.2	10776.6	10701.2	10631.1	10568.7	10560.9	10589.5	10631.1	10654.4
4°	10831.2	10789.6	10631.1	10501.1	10402.4	10394.6	10509.0	10615.5	10659.7
5°	10852.0	10776.6	10542.7	10324.4	10194.5	10243.9	10405.0	10594.7	10675.2
6°	10823.4	10711.7	10407.6	10116.6	9968.4	10033.4	10269.9	10545.3	10664.9
7°	10750.6	10607.7	10233.5	9890.5	9708.6	9809.9	10111.4	10462.2	10625.9
8°	10615.5	10444.0	10012.6	9628.0	9448.7	9563.0	9916.5	10342.6	10532.4
9°	10438.8	10249.1	9794.3	9388.9	9196.6	9331.8	9713.8	10184.1	10402.4
10°	10228.3	10025.6	9552.6	9139.5	8965.4	9092.7	9495.5	9999.6	10225.7
11°	9981.4	9786.5	9311.0	8905.6	8739.3	8864.0	9277.2	9778.8	10023.0
12°	9713.8	9534.5	9064.1	8679.5	8523.6	8643.1	9043.3	9550.0	9791.7
13°	9446.1	9266.8	8825.0	8461.2	8318.3	8432.6	8814.6	9300.6	9542.2
14°	9157.7	8993.9	8586.0	8253.3	8123.4	8232.5	8580.8	9048.5	9277.2
15°	8858.8	8728.8	8357.3	8053.2	7931.1	8035.0	8357.3	8788.6	9009.5
16°	8578.1	8458.6	8136.4	7855.7	7754.4	7837.5	8131.2	8528.8	8739.3
17°	8292.3	8183.2	7915.5	7660.8	7569.9	7650.4	7899.9	8266.3	8456.0
18°	8006.5	7915.5	7673.8	7455.6	7375.0	7447.7	7671.2	8001.2	8172.7
19°	7741.4	7658.2	7453.0	7268.4	7195.7	7260.6	7471.1	7746.6	7918.1
20°	7468.5	7400.9	7221.6	7070.9	7003.3	7063.1	7226.8	7494.5	7645.2
21°	7206.1	7146.3	6990.4	6863.0	6808.5	6857.9	7008.6	7250.2	7382.8
22°	6933.2	6899.4	6759.1	6652.5	6616.2	6647.3	6785.1	6993.0	7117.7
23°	6665.5	6634.4	6527.8	6439.5	6408.3	6439.5	6561.6	6748.7	6860.5
24°	6395.3	6361.5	6283.6	6226.3	6200.4	6226.3	6330.3	6488.8	6595.4
25°	6086.1	6080.9	6026.3	5995.1	5982.1	6010.7	6083.5	6221.2	6309.5
26°	5789.8	5774.2	5758.6	5753.4	5756.0	5771.6	5831.4	5935.3	6005.5
27°	5426.0	5449.4	5472.7	5504.0	5514.3	5527.4	5555.9	5631.3	5683.3
28°	5077.7	5121.9	5179.1	5241.5	5270.1	5270.1	5272.6	5314.2	5358.4
29°	4732.2	4778.9	4869.9	4963.4	5002.4	4997.2	4976.4	4994.6	5020.6
30°	4370.9	4430.7	4552.9	4675.0	4732.2	4711.4	4672.4	4654.2	4669.8
31°	4017.5	4077.3	4212.4	4344.9	4420.3	4396.9	4329.4	4316.4	4324.1
32°	3679.7	3739.5	3864.2	4004.5	4090.3	4059.1	3988.9	3968.1	3970.7
33°	3352.2	3399.0	3513.4	3643.3	3713.5	3705.7	3648.5	3622.5	3625.1
34°	3043.0	3082.0	3167.7	3266.5	3334.1	3331.5	3289.9	3292.5	3300.3
35°	2767.6	2788.4	2829.9	2884.5	2926.1	2949.4	2954.7	2975.4	3001.5
37.5°	2091.9	2099.7	2050.4	1995.7	1985.4	2053.0	2169.9	2271.2	2310.2
40°	1450.0	1431.9	1369.5	1273.3	1244.7	1320.1	1468.2	1611.2	1663.1
42.5°	901.8	893.9	855.0	782.2	756.2	800.4	912.1	1021.3	1073.2
45°	537.9	527.5	506.7	478.2	472.9	491.1	548.3	610.7	639.3
47.5°	309.2	306.7	293.6	283.3	280.7	293.6	319.6	356.0	363.8
50°	168.9	166.3	163.7	163.7	163.7	171.5	184.5	194.9	200.1
52.5°	83.2	85.8	83.2	85.8	88.4	93.5	90.9	101.4	101.4
55°	41.6	39.0	44.2	49.4	49.4	49.4	49.4	49.4	46.8
57.5°	31.2	33.8	28.6	31.2	28.6	28.6	26.0	28.6	31.2



TEST NUMBER: P250177

CATALOG NUMBER: LSR8B90D010 EC8B90940 8LBM0WH

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
60°	20.8	18.2	20.8	23.4	26.0	23.4	18.2	20.8	23.4
62.5°	10.4	10.4	10.4	15.6	23.4	18.2	15.6	13.0	13.0
65°	15.6	10.4	13.0	15.6	13.0	13.0	10.4	13.0	10.4
67.5°	7.8	13.0	7.8	5.2	7.8	10.4	7.8	5.2	5.2
70°	0.0	2.6	2.6	7.8	7.8	7.8	7.8	5.2	5.2
72.5°	2.6	2.6	2.6	5.2	2.6	5.2	2.6	2.6	5.2
75°	0.0	0.0	2.6	2.6	0.0	2.6	0.0	0.0	0.0
77.5°	2.6	0.0	2.6	2.6	0.0	0.0	0.0	2.6	0.0
80°	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	2.6
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)