

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: P183635

Luminaire Tested: **LSM90M9035D010TEP**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P183635
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P27020)
Test Lab: INNOVATION CENTER-P2
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSM90M9035D010TEP
Description: PORTFOLIO SURFACE MOUNT LED LUMINAIRE, MEDIUM DISTRIBUTION WITH CLEAR GLASS LENS
Light Source: 90 CRI, 3500K CCT LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7524.9 lumens
Efficiency: N/A
Efficacy: 77.1 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.33
Luminous Opening: Circular (Dia: 1.12' x H: 0')
CIE Type: Direct

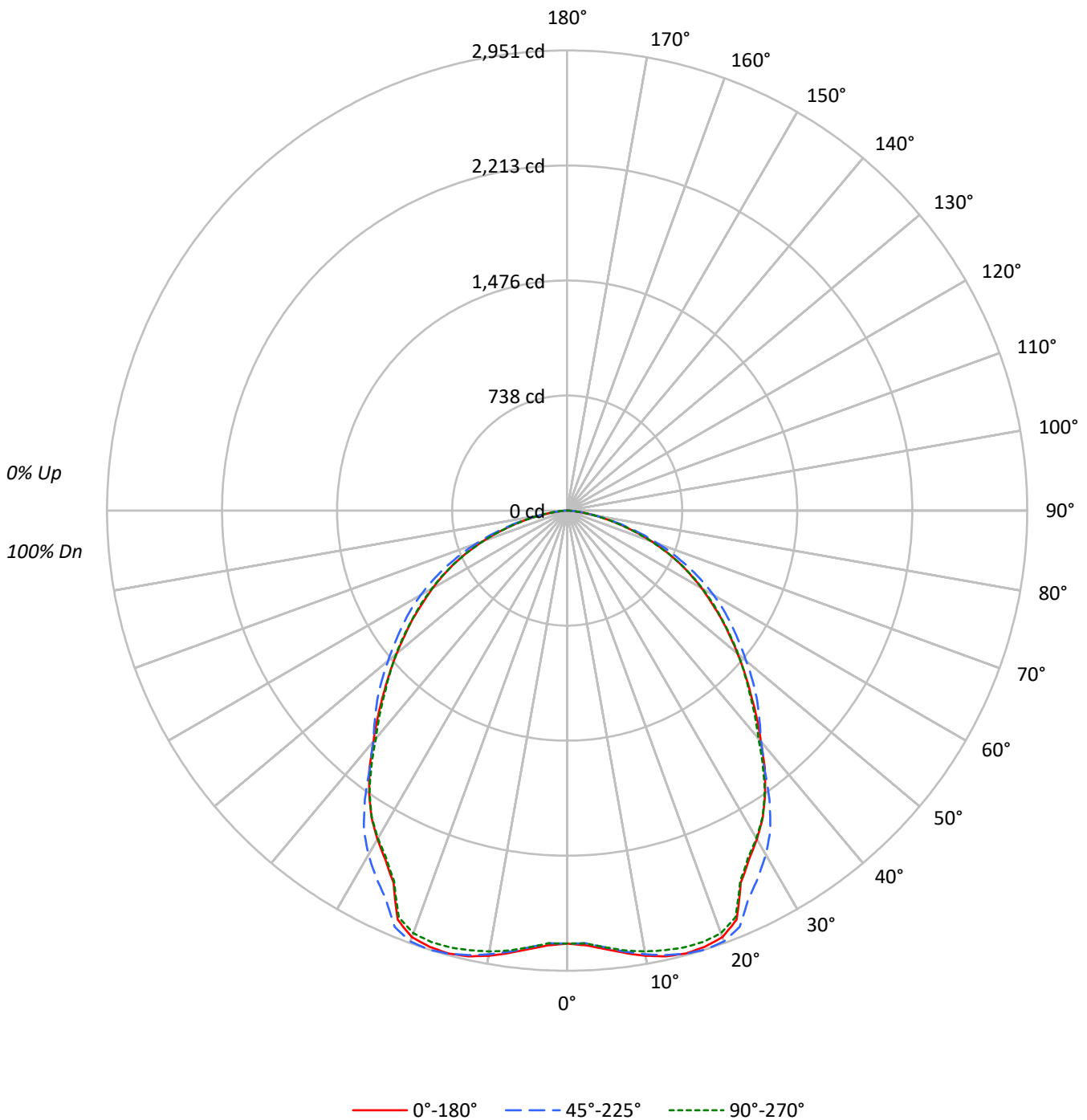
Input Watts (W): 97.58
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	110	105	101	98	107	103	99	96	99	96	93		95	92	90		91	89	87	85
2	100	92	86	80	98	90	85	79	87	82	78		84	80	76		81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66		74	69	65		72	67	64	61
4	84	73	64	58	82	71	63	57	69	62	57		67	61	56		64	59	55	53
5	78	65	56	50	76	64	56	50	62	55	49		60	54	49		58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43		54	48	43		53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39		50	43	38		48	43	38	36
8	62	49	41	35	61	48	40	35	47	40	35		46	39	34		45	39	34	32
9	58	45	37	32	57	44	37	32	43	36	31		42	36	31		41	35	31	29
10	55	42	34	29	53	41	34	29	40	33	29		39	33	28		38	33	28	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	30071	30071	30071
5°	30686	30567	30556
10°	31877	31778	31569
15°	32959	32982	32511
20°	33545	33879	33234
25°	31471	32845	31352
30°	30422	31860	30334
35°	29254	29889	29202
40°	27310	27325	26985
45°	25513	26386	25314
50°	24023	25253	24124
55°	22749	24373	22844
60°	21571	23498	21744
65°	20293	22036	20268
70°	18205	19661	18110
75°	14978	16150	15020
80°	10913	11661	11225
85°	6337	6709	6585



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	272.4	3.6
10°-20°	832.6	11.1
20°-30°	1250.3	16.6
30°-40°	1368.6	18.2
40°-50°	1338.7	17.8
50°-60°	1155.2	15.4
60°-70°	825.8	11.0
70°-80°	405.7	5.4
80°-90°	75.6	1.0
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°	2355.3	31.3
0°-40°	3723.8	49.5
0°-60°	6217.8	82.6
0°-90°	7524.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7524.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2777	2777	2777	2777	2777	
5°	2823	2847	2812	2834	2811	272
15°	2940	2980	2942	2945	2900	830
25°	2634	2790	2749	2772	2624	1227
35°	2213	2179	2261	2153	2209	1378
45°	1666	1777	1723	1757	1653	1290
55°	1205	1314	1291	1301	1210	1078
65°	792	835	860	827	791	780
75°	358	378	386	371	359	384
85°	51	54	54	53	53	71
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	2777	2777	2777	2777	2777	2777	2777	2777	2777	2777	2777
2.5°	2790	2813	2794	2790	2774	2812	2798	2801	2790	2792	2777
5°	2823	2847	2829	2824	2808	2847	2833	2835	2824	2827	2812
7.5°	2862	2887	2868	2865	2850	2889	2876	2878	2866	2868	2853
10°	2899	2926	2907	2905	2890	2932	2918	2920	2906	2907	2890
12.5°	2928	2956	2937	2937	2923	2963	2952	2954	2940	2940	2920
15°	2940	2969	2949	2952	2938	2980	2970	2971	2959	2962	2942
17.5°	2933	2962	2944	2946	2933	2976	2966	2970	2960	2968	2951
20°	2911	2937	2915	2917	2907	2950	2943	2950	2943	2955	2940
22.5°	2840	2864	2852	2865	2863	2909	2905	2911	2900	2906	2890
25°	2634	2665	2661	2698	2733	2790	2786	2788	2765	2767	2749
27.5°	2524	2550	2535	2537	2523	2555	2557	2607	2637	2664	2652
30°	2433	2453	2417	2392	2356	2388	2386	2430	2483	2546	2548
32.5°	2335	2341	2290	2256	2243	2277	2275	2288	2328	2396	2426
35°	2213	2218	2155	2145	2145	2179	2171	2175	2197	2241	2261
37.5°	2082	2075	2039	2041	2049	2080	2074	2074	2081	2101	2076
40°	1932	1940	1929	1939	1946	1976	1973	1975	1972	1961	1933
42.5°	1799	1819	1831	1843	1844	1873	1871	1879	1864	1835	1826
45°	1666	1690	1723	1747	1749	1777	1777	1779	1748	1727	1723
47.5°	1546	1571	1605	1641	1647	1676	1676	1671	1638	1625	1612
50°	1426	1458	1490	1533	1536	1558	1559	1554	1539	1523	1499
52.5°	1312	1351	1382	1417	1419	1437	1433	1437	1439	1421	1392
55°	1205	1245	1272	1297	1302	1314	1306	1319	1331	1315	1291
57.5°	1095	1138	1161	1178	1182	1192	1184	1201	1217	1207	1191
60°	996	1030	1046	1062	1063	1073	1066	1083	1101	1096	1085
62.5°	894	918	930	947	942	952	955	970	983	984	975
65°	792	805	815	825	827	835	838	844	864	866	860
67.5°	684	692	701	710	709	717	725	731	744	749	741
70°	575	585	590	594	593	601	608	613	625	628	621
72.5°	465	475	479	480	479	488	494	497	507	512	501
75°	358	371	373	371	370	378	381	386	393	394	386
77.5°	261	272	274	271	269	275	277	282	286	288	280
80°	175	186	185	184	181	185	188	190	193	193	187
82.5°	105	112	111	112	109	110	112	115	114	116	112
85°	51	54	54	54	53	54	55	57	55	57	54
87.5°	18	19	18	18	18	18	19	19	18	19	18
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	2777	2777	2777	2777	2777	2777	2777	2777	2777	2777
2.5°	2798	2782	2798	2791	2800	2797	2798	2809	2784	2778
5°	2833	2816	2832	2827	2834	2831	2833	2844	2818	2811
7.5°	2873	2855	2871	2864	2871	2868	2869	2878	2851	2845
10°	2910	2891	2905	2898	2902	2899	2901	2907	2878	2871
12.5°	2939	2920	2934	2926	2928	2924	2923	2926	2896	2888
15°	2963	2944	2954	2946	2945	2939	2937	2938	2908	2900
17.5°	2970	2948	2954	2945	2942	2937	2935	2937	2908	2900
20°	2956	2930	2933	2922	2918	2914	2914	2917	2889	2884
22.5°	2908	2886	2893	2886	2882	2878	2871	2864	2828	2821
25°	2768	2753	2779	2783	2772	2751	2712	2682	2630	2624
27.5°	2665	2634	2603	2564	2541	2532	2538	2549	2522	2512
30°	2550	2483	2423	2383	2368	2366	2390	2419	2424	2426
32.5°	2407	2322	2276	2263	2253	2250	2258	2291	2312	2331
35°	2245	2186	2162	2163	2153	2149	2144	2164	2186	2209
37.5°	2094	2068	2061	2065	2054	2048	2042	2047	2054	2062
40°	1952	1958	1962	1965	1951	1947	1942	1940	1928	1909
42.5°	1831	1847	1865	1865	1850	1848	1849	1843	1807	1781
45°	1727	1733	1764	1770	1757	1754	1755	1736	1679	1653
47.5°	1625	1628	1656	1670	1656	1653	1656	1616	1554	1541
50°	1522	1530	1542	1555	1542	1541	1538	1500	1439	1432
52.5°	1418	1434	1428	1431	1423	1424	1427	1388	1332	1320
55°	1312	1327	1312	1304	1301	1304	1310	1274	1230	1210
57.5°	1207	1216	1200	1184	1179	1186	1191	1161	1123	1108
60°	1098	1096	1083	1068	1058	1066	1074	1047	1013	1004
62.5°	983	981	965	952	942	948	956	930	907	899
65°	865	863	846	836	827	829	838	814	800	791
67.5°	751	744	727	721	710	714	720	701	688	680
70°	631	625	610	604	595	597	603	591	577	572
72.5°	509	508	494	486	481	482	487	481	468	464
75°	391	394	383	376	371	371	377	378	364	359
77.5°	288	288	279	280	272	272	276	280	265	262
80°	193	192	189	186	182	183	186	191	179	180
82.5°	114	114	114	112	109	108	112	116	108	108
85°	56	55	55	55	53	52	55	57	52	53
87.5°	19	18	18	19	18	18	18	18	17	18
90°	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)