Dimming:
PWM/TIME/0-5V/0-10V

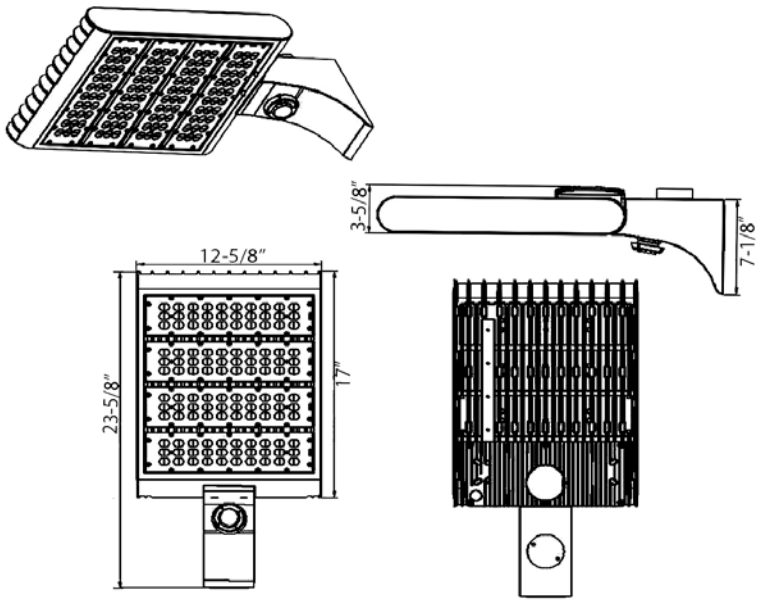
Cat# 71858
300 Watts
Pole Mount

RoHS

QPL ID #
PLQ1MRMEY96Q

	Model:	**71858**
OVERALL LAMP PARAMETERS	Input Voltage	347-480 VAC 50/60HZ
	Input Current	.86A Max
	Input Power	300W
	Power Factor	PF≥ 0.9
	Luminance	36800 LM
	Luminous Efficiency	128 LM/W
	CRI	>80
	Beam Angle	Type III 150x105°
	Main Structure	Aluminium + PC Lens
LED DRIVER	Output Voltage	36-60VDC
	Output Current	8.9A
	Driver Efficiency	88%
LED	LED Manufacturer	Philips
	LED Type	3030 LED
	LED Quantity	120 PCS
	LED Efficacy	150 LM/W
	Color Temperature	5000K
Photocell	-	Not Included
LIFESPAN & ENVIRONMENT	Lifespan	50,000+ Hrs.
	Warranty	5 Years
	IP Rating	IP65 Wet Locations
	Operating Temperature	-40 —+55
	Storage Temperature. Humidity	-40℃—+80℃ , 10—90% RH
SAFETY&EMC	Safety Norms	UL1598, UL8750, EN60598, EN61347-2-13, EN62031, EN62471
	Withstand Voltage	I/P-FG: 2121VDC
	Grounding Resistance	≤0.5Ω, OK
	Electromagnetic Compatibility	EN55015, EN61000-2-3, EN61000-3-3, EN61547
OTHERS	Dimension	Pls refer to attached dimension drawing
	Net Weight	KG
	Gross Weight	KG
	Packing Size	master carton:L*W*Hmm
	Q'ty / Carton	1PCS
	Volume	
	EPA Rating	1.68ft^2

Dimension：



LM-79-08 Test Report

For

Morris Products Inc.

53 Carey Rd. Queensbury, NY 12804

Outdoor Pole/Arm-mounted Area and Roadway Luminaires

Model name(s): 71577A, 71857, 71858

Representative (Tested) Model: 71577A

Model Different: All construction and rating are the same, except CCT

Test & Report By:

Charman Chen

Engineer: Charman Chen

Date: Jan.23,2017

Review By:

Tommy Liang

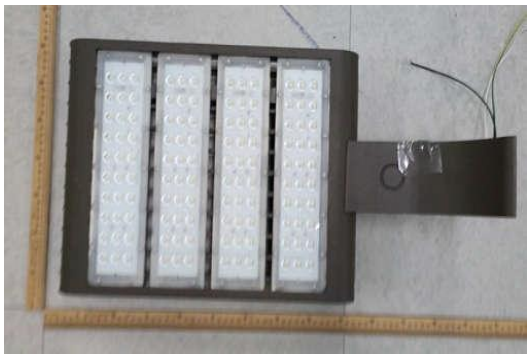
Manager: Tommy Liang

Note: This report does not imply product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

1.1 Product Information:

Organization Name	Morris Products Inc.	
Brand Name	MORRIS	
Model Number	71577A	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	Outdoor Pole/Arm-mounted Area and Roadway Luminaires	
Rated Voltage / Frequency	100-277Vac, 50/60 Hz	
Nominal Power	300W	
Rated Initial Lamp Lumen	--	
Declared CCT	4000K	
LED Manufacturer	Philips Lumileds	
LED Model	L130-xxyy003000W21	
Sample Number	GZE170125-G1(4000K)	
Luminaire Aperture (for downlights)	--	in.
Luminaire Length	--	mm
Luminaires Width	--	mm
Number of Units (modular products)	N/A	s

Photo



1.2 Test Specifications:

Date of Receipt	Jan. 21,2017
Date of Test	Jan. 22,2017
Test item	1. Total Luminous Flux 2. Luminous Distribution Intensity 3. Luminous Efficacy 4. Correlated Color Temperature 5. Color Rendering Index 6. Chromaticity Coordinate 7. Electrical Parameters
Reference Standard	1. IES LM-79-2008 Electrical and Photometric Measurements of Solid-State Lighting Products 2. ANSI C78.377-2008 Specifications for the Chromaticity of Solid State Lighting Products 3. CIE 13.3-1995 Method of Measuring and Specifying Colour Rendering Properties of Light Sources 4. CIE 15-2004 Technical Report Colorimetry 5. IESNA LM-16-93 Practical Guide to Colorimetry of Light Source 6. IESNA TM-16-05 Technical Memorandum on Light Emitting Diode (LED) Sources and Systems
Reference Work Instruction	QD25

1.3 Test Methods

1) Photometric and Light Distribution Measurement – Goniophotometer Method:

Photometric parameters were measured using the goniophotometer and software. The ambient temperature shall be maintained at 25 °C ±1 °C, measured at a point not more than 1 m from the sample and at the same height as the sample. The sample was operated at 120 or rated Volts AC, 60Hz. It was stabilized before measurement was made. Luminous flux, luminaire efficacy, zonal lumen were calculated from the software taken at 1 °vertical intervals and 22.5 °horizontal intervals.

2) Chromaticity Measurement – Sphere-Spectroradiometer Method:

Chromaticity parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25 ºC ±1 ºC. The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere. The sample was operated at 120 or rated Volts AC, 60Hz. It was stabilized before measurement was made. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral power distribution taken at 5 nm intervals over the range of 380 to 780 nm.

3) Electrical Measurements:

Electrical parameters were measured using power meters incorporated in goniophotometer or sphere-spectroradiometer system. The ambient temperature surrounding the sample was maintained at 25 ºC ±1 ºC. The sample was operated at 120 or rated Volts AC, 60Hz. It was stabilized before measurement was made. Voltage, frequency, current, power, power factor and total harmonic distortion were measured by and read from the power meter.

2.1 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction QD25)

Test date	2017-01-22	Test Ambient:	25.2 ºC
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	71577A		

Electrical Measurement :

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
GZE170125-G1	120.0	60	2.520	301.2	0.9961	7.49
	277.0	60	1.1321	290.8	0.9273	10.28
				DLC Pass Criteria	>= 0.9(-3%)	<= 20(+5)

Chromaticity Measurement - Sphere-Spectroradiometer Method :

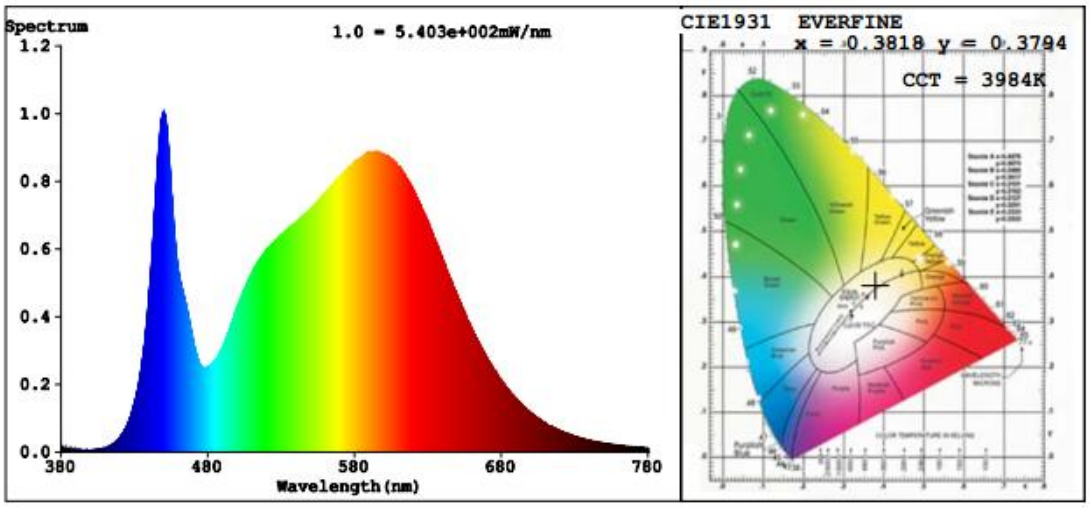
Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
CCT (K)	3984
Duv	0.0008
Chromaticity (x, y)	x=0.3818 y=0.3794
Chromaticity (u', v')	u'=0.2249 v'=0.5029
Color Rendering Index (CRI)	83.0
R9	10

Special Color Rendering Indices			
R1	81	R9	10
R2	89	R10	73
R3	94	R11	83
R4	82	R12	62
R5	81	R13	83
R6	84	R14	97
R7	86	R15	75
R8	65	--	--

Photometric Measurement – Goniophotometer Method :

Parameter	Result		DLC V4.1 Pass Criteria	
Test Voltage (V)	120.0	277.0	--	
Frequency (Hz)	60	60		
Total Luminous (lm)	36090	35431	>=10000 (-10%)	
Luminous Efficacy (lm/W)	119.82	121.84	Standard: >= 100(-3%)	Premium: >= 120(-3%)
Zonal lumens in the 0-90 °zone (%)	99.7	--	>=100(-1)	
Zonal lumens in the 80-90 °zone (%)	1.0	--	<=10(+3)	
Beam Angle ( )	130.7	--	--	
Center Beam Candle Power (cd)	9718	--	--	

Spectral Power Distribution & Chromaticity Diagram

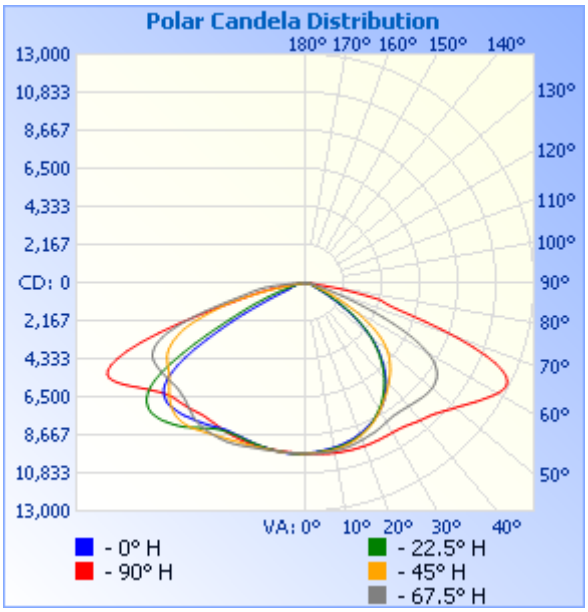


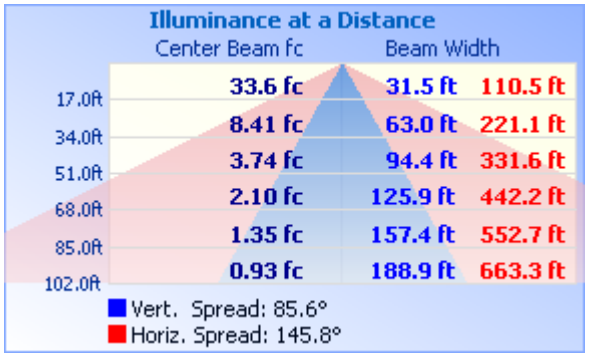
Zonal Lumen Tabulation

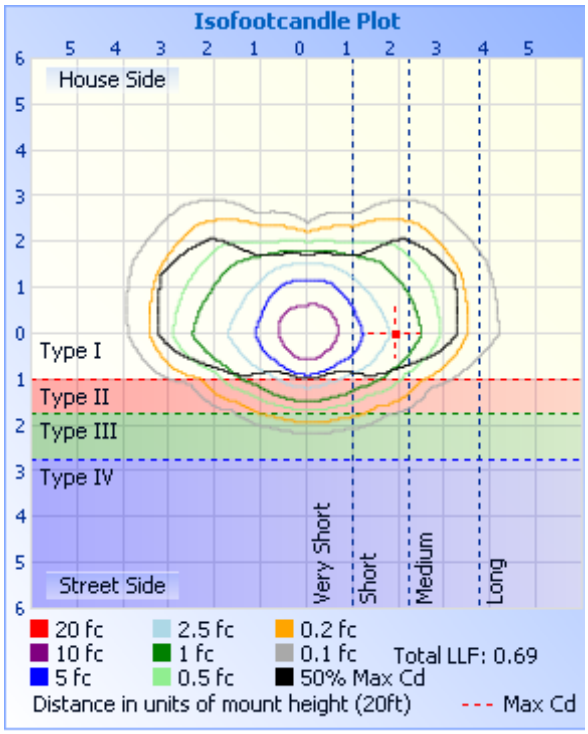
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	8,035.5	22.3%
0-40	13,835.6	38.3%
0-60	27,904.2	77.3%
60-90	8,084.4	22.4%
70-100	2,695.9	7.5%
90-120	32.2	0.1%
0-90	35,988.6	99.7%
90-180	93.2	0.3%
0-180	36,081.8	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	926.5	2.6%	90-100	6.3	0%
10-20	2,731.4	7.6%	100-110	10.9	0%
20-30	4,377.6	12.1%	110-120	15.0	0%
30-40	5,800.1	16.1%	120-130	17.2	0%
40-50	6,912.9	19.2%	130-140	15.2	0%
50-60	7,155.7	19.8%	140-150	11.9	0%
60-70	5,394.8	15.0%	150-160	8.9	0%
70-80	2,338.6	6.5%	160-170	5.4	0%
80-90	351.1	1.0%	170-180	2.2	0%

Photometric Data







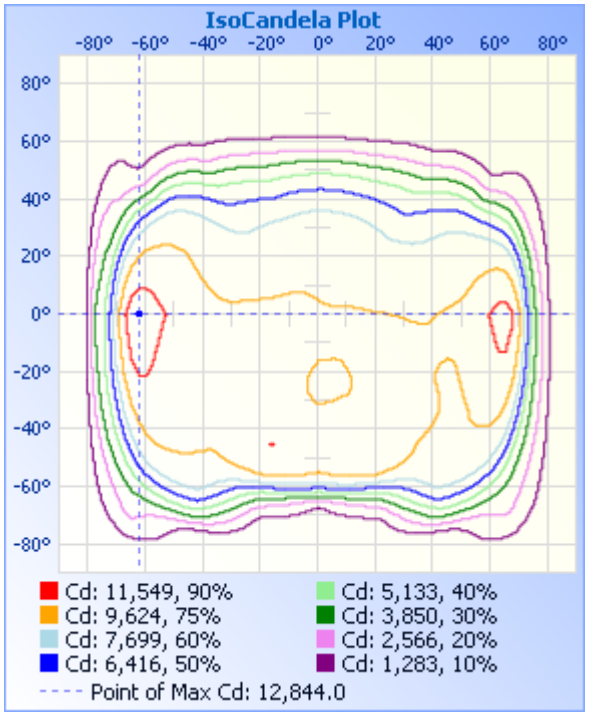


Table--1 UNIT: ×10cd

γ (DEG) \ C (DEG)	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338	
0	972	972	972	972	972	972	972	972	972	972	972	972	972	972	972	972	
5	969	965	962	962	963	966	969	974	978	980	982	978	976	974	973	971	
10	968	961	954	951	952	957	965	972	984	987	986	978	972	970	972	973	
15	968	954	943	938	936	945	950	965	987	998	994	977	964	964	973	979	
20	966	938	923	917	914	921	925	951	989	1013	1004	977	954	958	978	991	
25	963	910	888	886	882	887	892	937	988	1027	1017	979	949	953	989	1006	
30	956	878	836	845	844	837	844	918	987	1030	1030	998	957	966	1005	1011	
35	952	843	775	787	789	774	792	909	996	1024	1055	1046	983	1009	1030	1009	
40	961	827	710	710	712	698	740	915	1021	1009	1087	1115	1008	1071	1055	991	
45	980	827	638	614	614	604	683	931	1053	993	1075	1151	1032	1120	1052	958	
50	1001	819	553	500	494	492	612	939	1109	1003	1026	1155	1035	1145	1008	943	
55	1067	776	440	350	336	355	502	914	1182	1026	974	1083	955	1091	942	953	
60	1168	653	288	184	168	200	340	810	1261	1041	936	794	644	807	904	967	
65	1240	414	137	85.2	73.7	94.2	173	553	1260	1020	857	400	222	409	843	956	
70	993	156	64.0	50.4	44.8	54.5	78.3	231	928	872	708	183	86.9	186	696	831	
75	421	59.5	38.3	31.6	34.5	33.1	42.4	77.8	487	568	443	69.5	60.4	73.0	440	526	
80	149	33.8	19.8	20.8	25.7	20.7	20.7	39.6	205	326	67.6	37.8	42.6	37.4	72.4	311	
85	20.4	9.70	7.48	9.42	11.7	9.30	8.19	12.2	20.1	119	13.9	22.3	19.8	21.3	13.7	119	
90	0.94	0.84	0.48	0.13	0.12	0.15	0.46	0.82	1.06	1.22	0.61	0.19	0.16	0.34	0.76	1.24	
95	1.10	1.13	0.83	0.14	0.07	0.18	0.88	1.08	1.05	0.57	0.23	0.06	0.05	0.13	0.38	0.66	
100	1.60	1.57	1.24	0.42	0.22	0.46	1.36	1.49	1.38	0.56	0.16	0.08	0.07	0.12	0.33	0.75	
105	2.09	2.01	1.54	0.89	0.63	0.98	1.65	1.99	1.72	0.77	0.24	0.16	0.16	0.18	0.41	1.05	
110	2.41	2.34	1.82	1.41	1.20	1.54	1.91	2.33	1.97	1.02	0.39	0.30	0.33	0.34	0.58	1.44	
115	2.49	2.52	2.10	1.60	1.58	1.77	2.13	2.52	2.01	1.27	0.60	0.39	0.52	0.47	0.81	1.68	
120	2.61	2.53	2.34	2.08	1.89	1.95	2.40	2.53	2.11	1.35	0.81	0.66	0.68	0.65	1.04	1.74	
125	2.67	2.58	2.29	2.50	3.05	2.57	2.39	2.56	2.02	1.43	0.90	1.04	1.31	1.07	1.14	1.81	
130	2.58	2.39	2.16	2.55	3.03	2.60	2.30	2.38	2.00	1.38	1.08	1.27	1.58	1.37	1.43	1.75	
135	2.28	2.16	1.98	2.51	2.92	2.59	2.14	2.13	1.92	1.41	1.17	1.47	1.86	1.59	1.50	1.76	
140	2.20	2.06	1.80	2.47	2.99	2.52	1.84	2.02	1.86	1.54	1.17	1.63	2.02	1.61	1.44	1.86	
145	2.08	1.75	1.75	2.31	2.64	2.40	1.52	1.81	1.91	1.56	1.23	1.72	1.74	1.77	1.61	1.86	
150	1.97	1.67	1.98	2.27	2.86	2.42	1.72	1.80	1.89	1.63	1.47	1.81	2.17	1.91	2.04	1.80	
155	1.76	1.64	2.05	2.24	2.63	2.21	1.82	1.81	1.80	1.81	1.55	1.84	1.82	1.92	2.12	1.74	
160	1.75	1.57	1.96	2.09	2.40	2.12	1.78	1.79	1.70	1.81	1.51	1.82	1.83	1.95	2.04	1.87	
165	1.78	1.58	1.95	1.95	2.13	2.10	1.80	1.73	1.84	1.75	1.48	1.82	1.78	1.93	2.04	2.05	
170	2.00	1.79	2.26	2.48	2.40	2.50	2.22	1.82	2.11	2.08	1.75	2.22	2.47	2.48	2.49	2.42	
175	2.16	1.97	2.35	2.51	2.73	2.50	2.36	2.00	2.25	2.25	1.99	2.26	2.53	2.76	2.54	2.51	
180	2.06	1.90	2.14	2.31	2.58	2.26	2.37	1.94	2.09	2.08	1.89	2.14	2.06	2.57	2.28	2.34	

3. Test Equipment

Equipment ID	Equipment Name	Last Calibration Date	Next Calibration Date
ST-R-336	2 meter Integrating Sphere	2016-07-01	2017-06-30
ST-R-331	Spectral analysis system HAAS-2000	2016-07-01	2017-06-30
D204	Standard Lamp	2016-07-01	2017-06-30
PF2010	Power Meter for Integrating Sphere	2016-07-01	2017-06-30
EE-09	Goniophotometer system	2016-07-01	2017-06-30
D908S	Standard Lamp	2016-07-01	2017-06-30
PF210	Power Meter for Goniophotometer	2016-07-01	2017-06-30
ST-R-181A	Temperature Tester	2016-07-01	2017-06-30
Uncertainty: Photometric Measurement (Sphere):1.74% Chromaticity Measurement(Sphere):14.3K Photometric Measurement(Goniophotometer):1.62%			

******** END OF REPORT ********