



**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : ENM4-SAX-3-LED-18L-40.IES**

**DESCRIPTIVE INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] LED-11801  
[TESTLAB] LSI INDUSTRIES, INC.  
[ISSUE DATE] 06/10/2020  
[TEST DATE] 05/05/20  
[MANUFACT] LSI INDUSTRIES, INC.  
[LUMCAT] ENM4-SAX-3-LED-18L-40  
[ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.  
[OTHER] TEST PROCEDURE: IESNA LM-79-08  
[SEARCH\_SOURCETYPE] LED  
[SEARCH\_APPLICATION] Outdoor

**CHARACTERISTICS**

IES Classification	Type III
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	20571
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	138
Total Luminaire Watts	149.1
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	21093
Maximum Candela Angle	55H 65V
Maximum Candela (<90 Degrees Vertical)	21093
Maximum Candela Angle (<90 Degrees Vertical)	55H 65V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1099 (5.3% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	860.4	N.A.	4.2
FM - Front-Medium (30-60)	8957.5	N.A.	43.5
FH - Front-High (60-80)	6217.7	N.A.	30.2
FVH - Front-Very High (80-90)	143.8	N.A.	0.7
BL - Back-Low (0-30)	796.0	N.A.	3.9
BM - Back-Medium (30-60)	2443.6	N.A.	11.9
BH - Back-High (60-80)	1057.9	N.A.	5.1
BVH - Back-Very High (80-90)	94.0	N.A.	0.5
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	20570.9	N.A.	100.0
BUG Rating	B3-U0-G3		

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**CANDELA TABULATION**

<b>Vert. Angles</b>	<b>Horizontal Angles</b>									
	<u><b>0.0</b></u>	<u><b>5.0</b></u>	<u><b>15.0</b></u>	<u><b>25.0</b></u>	<u><b>35.0</b></u>	<u><b>45.0</b></u>	<u><b>55.0</b></u>	<u><b>57.5</b></u>	<u><b>65.0</b></u>	<u><b>75.0</b></u>
<b>0.0</b>	1606	1606	1606	1606	1606	1606	1606	1606	1606	1606
<b>2.5</b>	1571	1577	1578	1582	1588	1589	1592	1593	1596	1599
<b>5.0</b>	1540	1545	1550	1555	1567	1572	1577	1580	1590	1594
<b>7.5</b>	1494	1501	1506	1518	1535	1553	1565	1570	1586	1591
<b>10.0</b>	1447	1457	1464	1479	1506	1527	1554	1559	1583	1594
<b>12.5</b>	1417	1424	1435	1455	1489	1516	1551	1558	1584	1597
<b>15.0</b>	1419	1425	1437	1460	1498	1537	1569	1578	1597	1611
<b>17.5</b>	1471	1477	1495	1527	1566	1604	1632	1648	1659	1654
<b>20.0</b>	1609	1616	1642	1677	1716	1750	1786	1790	1791	1762
<b>22.5</b>	1892	1916	1920	1949	1980	2006	2033	2032	2012	1937
<b>25.0</b>	2293	2317	2328	2361	2387	2397	2411	2400	2348	2215
<b>27.5</b>	2867	2830	2840	2873	2912	2969	2895	2873	2800	2602
<b>30.0</b>	3381	3354	3382	3436	3502	3561	3448	3415	3308	3031
<b>32.5</b>	3811	3826	3868	3992	4110	4201	4043	3983	3813	3458
<b>35.0</b>	4219	4242	4302	4501	4703	4841	4655	4539	4273	3830
<b>37.5</b>	4656	4686	4799	5003	5311	5443	5209	5072	4690	4164
<b>40.0</b>	5204	5235	5342	5582	5870	6015	5724	5584	5111	4461
<b>42.5</b>	5992	6023	6099	6270	6475	6578	6202	6075	5500	4731
<b>45.0</b>	7110	7139	7172	7313	7276	7197	6701	6555	5875	5034
<b>47.5</b>	8774	8757	8872	8841	8517	7980	7287	7066	6269	5372
<b>50.0</b>	10926	11002	11086	11002	10260	9115	7981	7695	6755	5819
<b>52.5</b>	12670	12759	13182	13489	12607	10831	8943	8559	7459	6536
<b>55.0</b>	13196	13216	13952	15053	15045	13047	10378	9806	8587	7790
<b>57.5</b>	12147	12257	13511	14971	16551	15534	12486	11830	10471	9684
<b>60.0</b>	8623	8817	10745	13763	16626	17543	16149	15657	13658	11714
<b>62.5</b>	4516	4652	6031	9889	14688	18168	19990	19849	16486	12639
<b>65.0</b>	2209	2274	2935	5167	10863	16948	21093	21081	17683	12467
<b>67.5</b>	1314	1347	1627	2528	6293	13093	19454	19764	16950	10362
<b>70.0</b>	833	851	991	1547	3142	7920	14921	15510	13091	5718
<b>72.5</b>	533	545	710	1073	2003	4187	9094	9789	6664	2289
<b>75.0</b>	367	388	520	877	1526	2114	4262	4526	2975	991
<b>77.5</b>	273	288	383	739	1322	1355	1851	2136	1403	470
<b>80.0</b>	193	200	296	621	1099	972	841	872	634	317
<b>82.5</b>	128	139	224	440	837	622	525	570	429	234
<b>85.0</b>	99	105	163	331	456	343	261	280	246	150
<b>87.5</b>	93	102	116	236	264	112	106	98	95	78
<b>90.0</b>	0	0	0	0	0	0	0	0	0	0

<b>Vert. Angles</b>	<b>Horizontal Angles</b>									
	<u><b>85.0</b></u>	<u><b>90.0</b></u>	<u><b>95.0</b></u>	<u><b>105.0</b></u>	<u><b>115.0</b></u>	<u><b>125.0</b></u>	<u><b>135.0</b></u>	<u><b>145.0</b></u>	<u><b>155.0</b></u>	<u><b>165.0</b></u>
<b>0.0</b>	1606	1606	1606	1606	1606	1606	1606	1606	1606	1606
<b>2.5</b>	1608	1615	1616	1618	1625	1636	1637	1635	1641	1640
<b>5.0</b>	1611	1624	1628	1642	1656	1677	1686	1688	1697	1699
<b>7.5</b>	1611	1628	1641	1665	1686	1716	1736	1753	1767	1776
<b>10.0</b>	1613	1627	1650	1681	1715	1757	1790	1808	1827	1834
<b>12.5</b>	1617	1629	1656	1691	1738	1795	1834	1856	1879	1885
<b>15.0</b>	1624	1634	1657	1698	1761	1824	1872	1895	1921	1927
<b>17.5</b>	1654	1656	1668	1711	1777	1851	1905	1929	1953	1958
<b>20.0</b>	1719	1699	1700	1727	1794	1876	1929	1954	1979	1979
<b>22.5</b>	1845	1799	1767	1751	1808	1901	1953	1980	2006	2003
<b>25.0</b>	2043	1950	1874	1784	1824	1934	1979	2008	2037	2041
<b>27.5</b>	2334	2165	2017	1815	1836	1974	2019	2046	2083	2104

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**CANDELA TABULATION - (Cont.)**

30.0	2613	2380	2160	1837	1837	2005	2053	2095	2176	2214
32.5	2872	2560	2277	1837	1827	2021	2074	2157	2311	2420
35.0	3096	2703	2360	1823	1806	2018	2083	2232	2473	2657
37.5	3295	2826	2416	1792	1771	2006	2078	2242	2613	2821
40.0	3492	2941	2458	1753	1719	1967	2045	2205	2804	2975
42.5	3676	3045	2489	1713	1659	1909	1988	2147	3048	2909
45.0	3888	3169	2537	1677	1596	1841	1929	2094	3295	2748
47.5	4167	3357	2630	1661	1543	1771	1870	2022	3310	2655
50.0	4599	3695	2822	1677	1495	1705	1807	1990	3126	2588
52.5	5219	4161	3066	1714	1445	1628	1732	1908	2814	2508
55.0	6242	4872	3417	1752	1377	1533	1642	1793	2420	2410
57.5	7635	5714	3700	1740	1289	1408	1523	1670	2034	2278
60.0	8775	6051	3414	1585	1176	1255	1388	1526	1669	2171
62.5	9183	5743	2759	1347	1051	1100	1240	1361	1435	2059
65.0	8403	4668	1854	1059	931	977	1092	1247	1280	1880
67.5	5640	2940	1175	840	813	866	954	1151	1179	1623
70.0	2268	1322	703	662	689	736	830	1047	1060	1352
72.5	1003	630	457	518	580	632	722	936	926	1129
75.0	432	349	335	432	489	546	629	800	733	826
77.5	256	230	266	379	418	473	526	430	367	468
80.0	189	182	230	324	344	349	305	321	273	342
82.5	135	135	185	277	266	205	196	230	175	258
85.0	85	89	143	210	150	132	131	108	84	158
87.5	42	42	90	117	80	65	42	53	38	70
90.0	0	0	0	0	0	0	0	0	0	0

**Vert. Angles**      **Horizontal Angles**

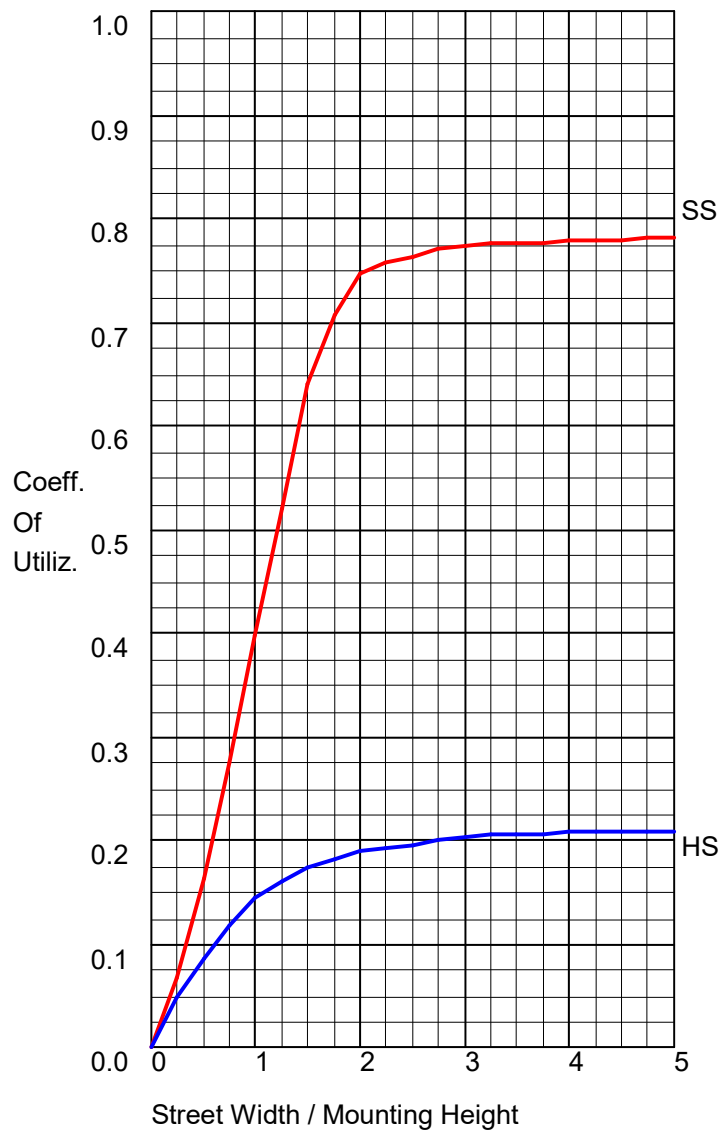
	<u>175.0</u>	<u>180.0</u>
0.0	1606	1606
2.5	1636	1633
5.0	1695	1693
7.5	1773	1777
10.0	1835	1839
12.5	1887	1894
15.0	1932	1927
17.5	1960	1962
20.0	1982	1985
22.5	2000	2004
25.0	2039	2035
27.5	2104	2101
30.0	2212	2219
32.5	2415	2416
35.0	2622	2603
37.5	2580	2536
40.0	2380	2320
42.5	2104	2013
45.0	1926	1837
47.5	1798	1714
50.0	1703	1618
52.5	1624	1520
55.0	1561	1422
57.5	1514	1339
60.0	1565	1323
62.5	1702	1432
65.0	1857	1594

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**CANDELA TABULATION - (Cont.)**

<b>67.5</b>	1941	1804
<b>70.0</b>	1914	1989
<b>72.5</b>	1634	1855
<b>75.0</b>	1188	1509
<b>77.5</b>	949	1128
<b>80.0</b>	684	759
<b>82.5</b>	477	477
<b>85.0</b>	332	325
<b>87.5</b>	364	489
<b>90.0</b>	0	0

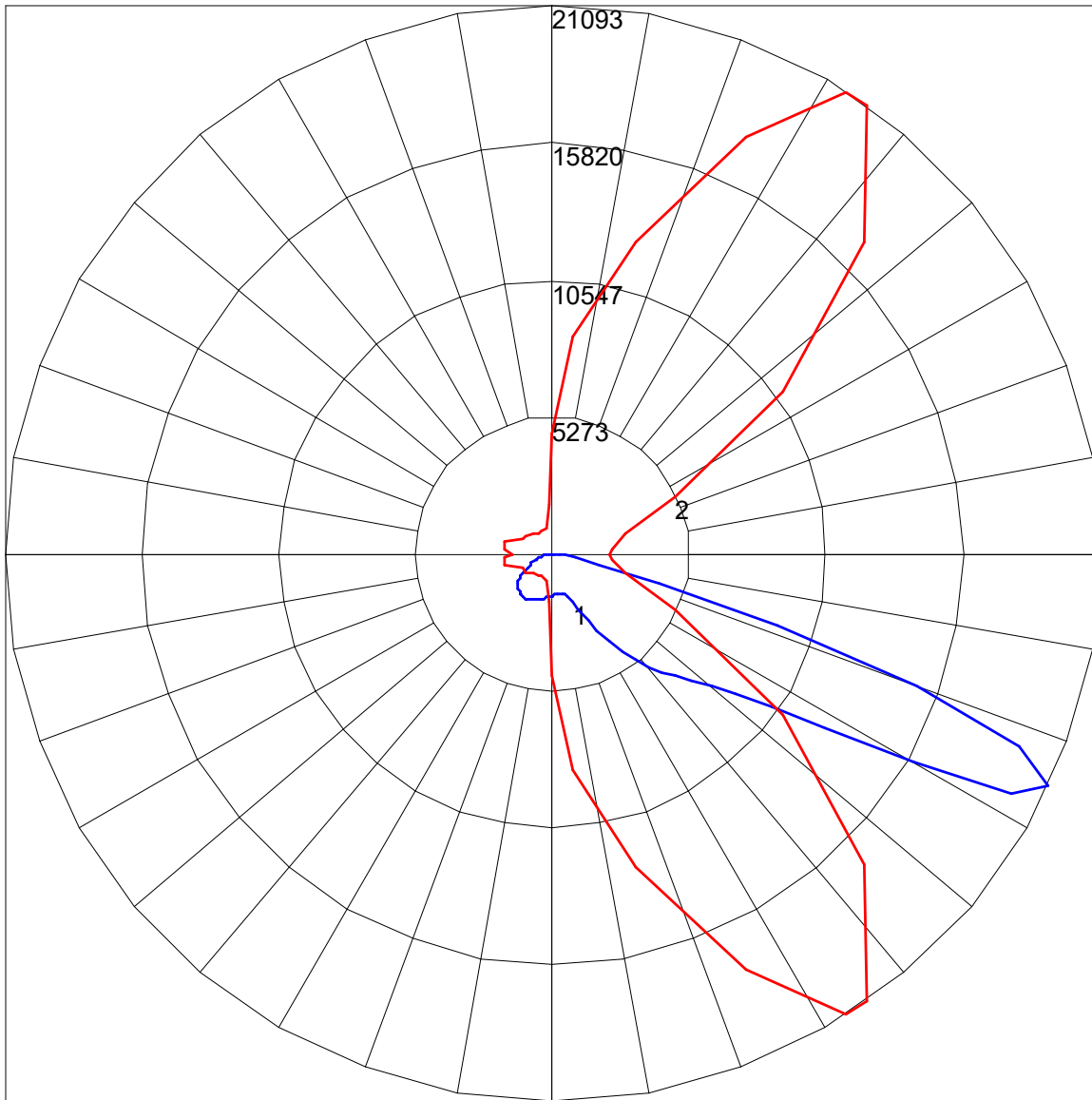
### COEFFICIENTS OF UTILIZATION



### FLUX DISTRIBUTION

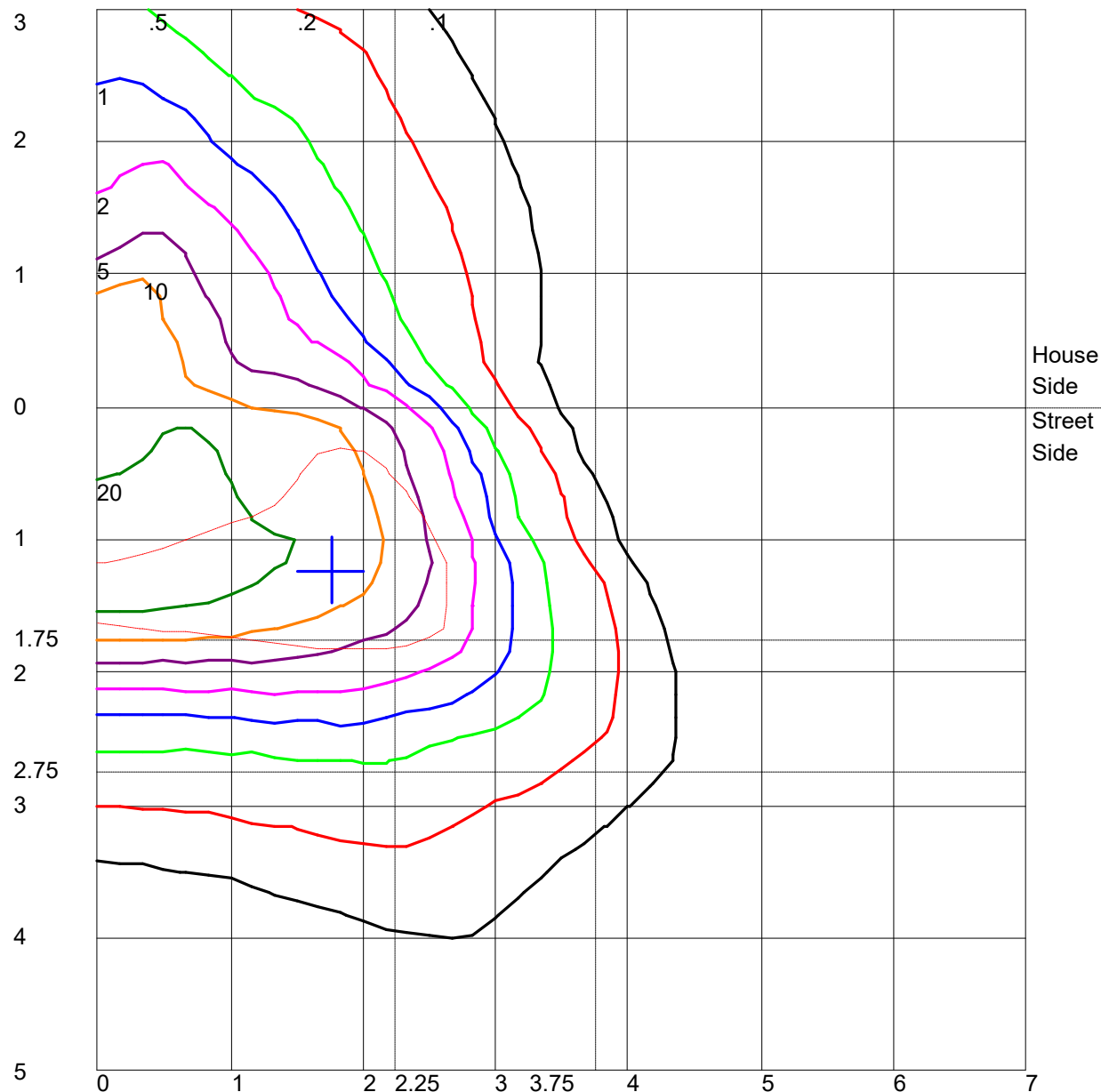
	Lumens	Percent Of Luminaire
Downward Street Side	16179.4	78.7
Downward House Side	4391.6	21.3
Downward Total	20571.0	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	20571.0	100.0

POLAR GRAPH



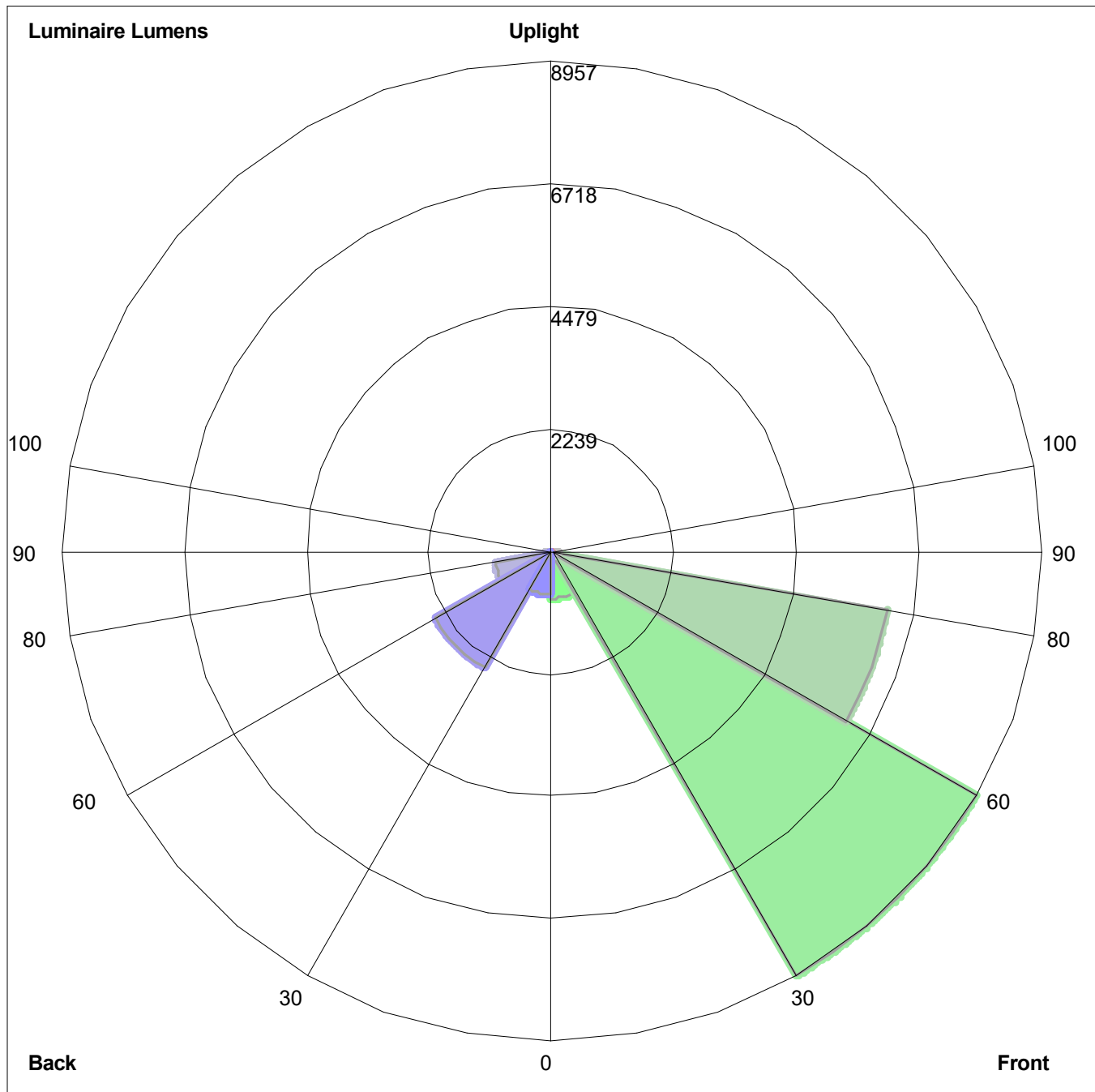
Maximum Candela = 21093 Located At Horizontal Angle = 55, Vertical Angle = 65  
# 1 - Vertical Plane Through Horizontal Angles (55 - 235) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (65) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE





LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=860.4, Medium=8957.5, High=6217.7, Very High=143.8  
Back: Low=796.0, Medium=2443.6, High=1057.9, Very High=94.0  
Uplight: Low=0.0, High=0.0

BUG Rating : B3-U0-G3