

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P735881

Luminaire Tested: S122DR-S675D835-X4F0-XX-UDD-W-W

Issue Date: 1/24/2024

Test Information

Test Method: LM-79-2019
Report Number: P735881
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/24/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DR-S675D835-X4F0-XX-UDD-W-W
Description: DEFINE 2 DIRECT RECESSED WITH WALL WASH OPTIC
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2960.4 lumens
Efficiency: N/A
Efficacy: 113.9 lumens/watt
Spacing Criteria (0/90/45): 0.9 / 1.11 / 1.12
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')
CIE Type: Direct

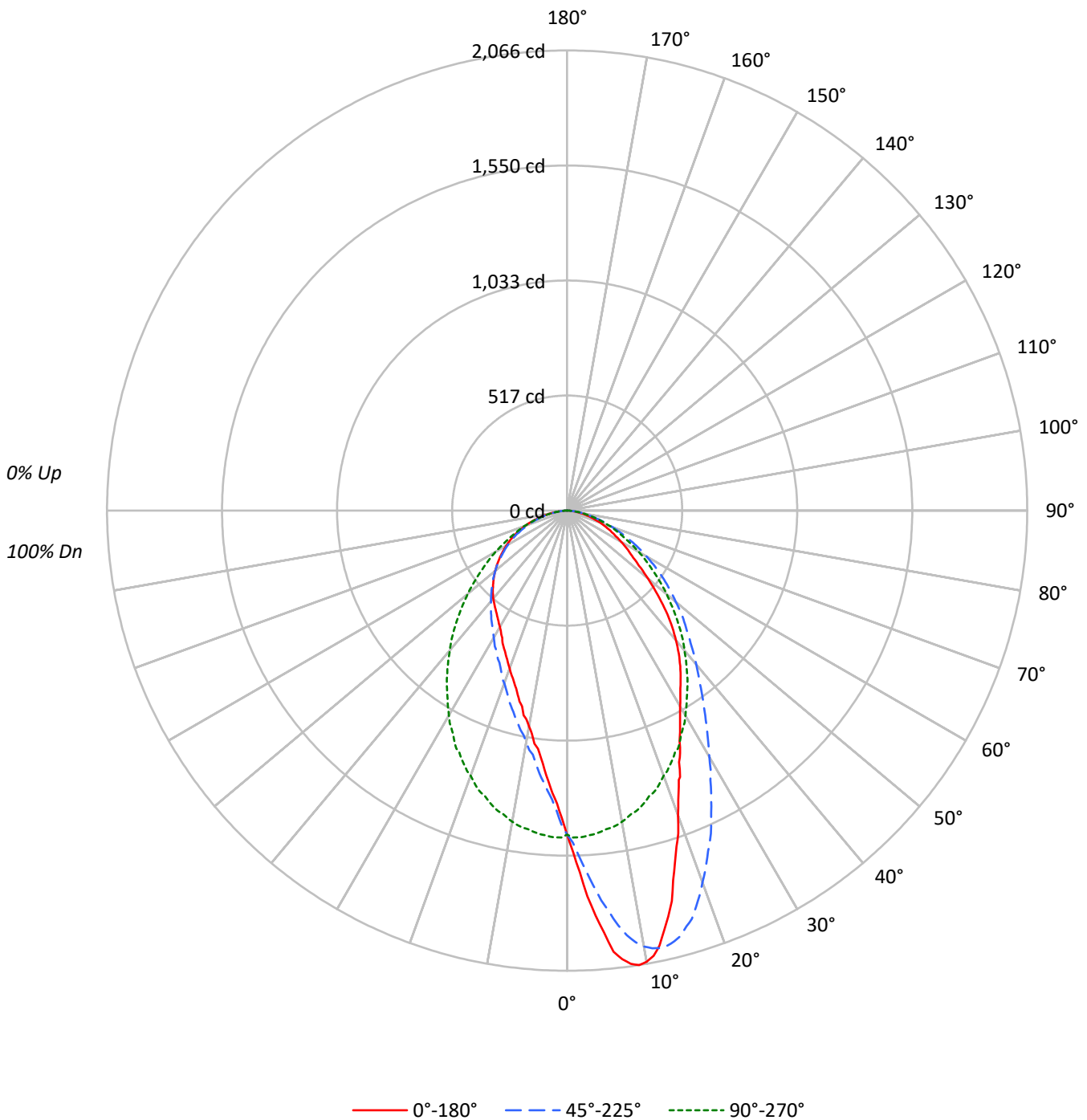
Input Watts (W): 26
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88					86				
2	101	94	87	82	98	92	86	81	88	83	79	85	81	78	82	79	76					74				
3	93	83	76	70	91	82	75	69	79	73	68	76	71	67	74	69	66					64				
4	86	75	67	60	83	73	66	60	71	64	59	69	63	58	67	62	58					56				
5	79	67	59	53	77	66	58	53	64	57	52	62	56	52	61	55	51					49				
6	74	61	53	47	72	60	52	47	59	52	46	57	51	46	55	50	46					44				
7	69	56	48	42	67	55	47	42	54	47	42	52	46	41	51	45	41					39				
8	64	51	43	38	63	51	43	38	50	43	38	48	42	37	47	41	37					35				
9	60	48	40	35	59	47	40	34	46	39	34	45	39	34	44	38	34					32				
10	57	44	37	32	55	44	36	32	43	36	31	42	36	31	41	35	31					30				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	23492	23492	23492	23492	23492
5°	30810	28477	23614	19806	18898
10°	33724	32593	23264	17313	16133
15°	30338	33013	22633	15629	14308
20°	25034	30532	21770	14175	12972
25°	21396	27239	21004	13112	12025
30°	18923	23789	19800	12286	11261
35°	17503	21070	18567	11708	10939
40°	16018	19011	17283	11213	10876
45°	14111	17354	15984	10869	10732
50°	11881	16000	14644	10575	10600
55°	9993	14722	13230	10218	10415
60°	9009	13304	12013	9914	10204
65°	8176	11691	10697	9436	10010
70°	7364	10102	9630	8733	9489
75°	6425	8546	8235	7923	8671
80°	5393	6695	6695	6881	7252
85°	4076	4817	5002	5372	5187

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 25482 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.2	4.8
10°-20°	393.0	13.3
20°-30°	515.4	17.4
30°-40°	544.7	18.4
40°-50°	505.7	17.1
50°-60°	404.8	13.7
60°-70°	276.8	9.4
70°-80°	142.9	4.8
80°-90°	33.9	1.1
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°	1051.6	35.5
0°-40°	1596.3	53.9
0°-60°	2506.8	84.7
0°-90°	2960.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2960.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1455	1455	1455	1455	1455	
5°	1901	1757	1457	1222	1166	187
15°	1815	1975	1354	935	856	498
25°	1201	1529	1179	736	675	553
35°	888	1069	942	594	555	554
45°	618	760	700	476	470	475
55°	355	523	470	363	370	325
65°	214	306	280	247	262	212
75°	103	137	132	127	139	110
85°	22	26	27	29	28	27
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1455	1455	1455	1455	1455	1455	1455	1455	1455
1°	1535	1527	1492	1494	1468	1439	1412	1395	1381
2°	1625	1609	1554	1527	1468	1406	1350	1335	1316
3°	1734	1696	1620	1556	1466	1376	1299	1272	1269
4°	1822	1788	1687	1586	1461	1347	1260	1231	1217
5°	1901	1879	1757	1624	1457	1319	1222	1182	1166
6°	1992	1947	1813	1662	1450	1292	1188	1140	1118
7°	2029	2001	1876	1687	1441	1261	1145	1093	1077
8°	2055	2044	1926	1728	1437	1232	1107	1075	1056
9°	2066	2057	1962	1745	1430	1217	1088	1035	1014
10°	2057	2061	1988	1771	1419	1186	1056	1010	984
11°	2036	2046	2002	1801	1405	1161	1027	980	955
12°	1996	2018	2008	1822	1392	1139	1007	962	940
13°	1934	1983	2004	1831	1384	1114	982	930	902
14°	1878	1929	1993	1851	1370	1086	959	907	883
15°	1815	1874	1975	1857	1354	1063	935	878	856
16°	1727	1806	1942	1864	1335	1037	913	859	830
17°	1654	1739	1917	1868	1325	1017	894	830	811
18°	1587	1683	1872	1865	1309	994	866	809	791
19°	1534	1612	1827	1858	1287	972	845	794	773
20°	1457	1547	1777	1855	1267	952	825	773	755
21°	1393	1485	1731	1845	1253	933	810	753	737
22.5°	1309	1390	1654	1826	1222	901	777	734	712
23°	1299	1368	1634	1820	1213	894	766	723	705
24°	1236	1309	1587	1801	1190	872	748	710	689
25°	1201	1261	1529	1783	1179	852	736	693	675
26°	1152	1221	1477	1757	1155	834	717	678	661
27°	1116	1174	1423	1738	1127	815	702	663	642
28°	1081	1137	1371	1707	1107	794	691	650	630
29°	1045	1094	1329	1683	1088	776	674	633	614
30°	1015	1060	1276	1651	1062	755	659	621	604
32.5°	946	984	1168	1575	1000	713	623	588	578
35°	888	913	1069	1490	942	668	594	560	555
37.5°	827	851	979	1401	881	627	561	539	535
40°	760	792	902	1313	820	587	532	515	516
42.5°	693	730	827	1210	763	549	504	492	494
45°	618	665	760	1116	700	513	476	470	470
47.5°	540	600	702	1019	640	477	449	445	447
50°	473	527	637	925	583	444	421	420	422
52.5°	407	461	580	837	525	414	394	394	396
55°	355	397	523	745	470	379	363	366	370
57.5°	319	347	467	657	419	345	335	337	342
60°	279	301	412	576	372	312	307	311	316
62.5°	243	262	360	503	321	280	278	284	289
65°	214	227	306	429	280	248	247	256	262



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	184	194	259	359	239	216	216	226	231
70°	156	164	214	296	204	184	185	197	201
72.5°	127	134	174	238	165	154	157	167	171
75°	103	108	137	188	132	123	127	136	139
77.5°	79	83	101	138	101	96	100	108	108
80°	58	59	72	97	72	69	74	78	78
82.5°	38	40	47	62	48	47	49	52	52
85°	22	23	26	34	27	27	29	29	28
87.5°	9	10	11	13	12	13	13	11	12
90°	0	0	0	0	0	0	0	0	0

(END OF REPORT)