

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: NEO-RAY

Report Number: P199475

Luminaire Tested: **S124-DIW-U1-2-40-0048-1D-UDD-1-5-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199475
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P28062 P28062)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124-DIW-U1-2-40-0048-1D-UDD-1-5-W
Description: DEFINE 4-INCH DIRECT/INDIRECT WALL LED LUMINAIRE
UPLIGHT LL1-4000K, SATIN WHITE DIFFUSER
DOWNLIGHT LL2-4000K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

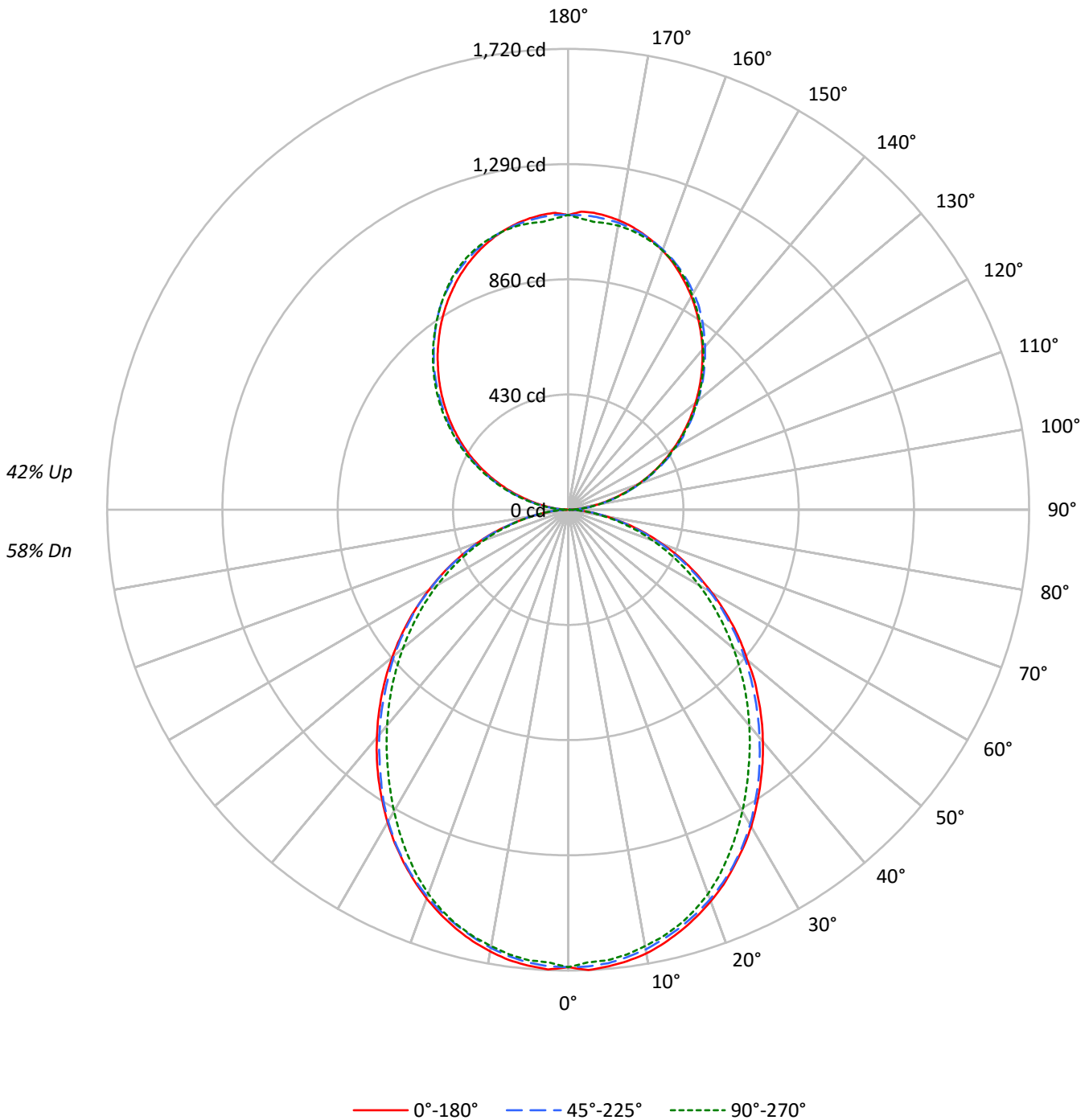
Lumens per Lamp: N/A
Luminaire Lumens: 7268.3 lumens
Efficiency: N/A
Efficacy: 108.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.14 / 1.28
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4.08' x H: 0.38')
CIE Type: General Diffuse

Input Watts (W): 67
Input Voltage (V): NR
Input Current (A_{in}): 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	109	109	109	109	102	102	102	102	88	88	88	75	75	75	64	64	64	58
1	100	95	91	88	93	89	86	83	77	75	72	66	65	63	56	55	54	49
2	91	83	77	72	84	78	73	68	68	64	60	58	55	53	50	48	46	41
3	83	73	66	60	77	69	62	57	60	55	51	52	48	45	44	41	39	35
4	76	65	57	51	71	61	54	48	53	48	43	46	42	38	40	36	34	30
5	70	58	50	44	65	55	47	42	48	42	38	42	37	33	36	32	29	26
6	64	52	44	38	60	49	42	36	43	37	33	38	33	29	32	29	26	23
7	60	47	39	34	55	44	37	32	39	33	29	34	30	26	30	26	23	21
8	55	43	35	30	52	40	33	28	36	30	26	31	27	23	27	24	21	18
9	52	39	32	27	48	37	30	25	33	27	23	29	24	21	25	21	19	17
10	48	36	29	24	45	34	27	23	30	25	21	27	22	19	23	20	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	13503	13503	13503
5°	13478	12198	13454
10°	13289	11081	13232
15°	13000	10085	12934
20°	12668	9110	12576
25°	12265	8124	12153
30°	11843	7195	11691
35°	11340	6338	11180
40°	10834	5581	10646
45°	10288	4884	10088
50°	9673	4226	9501
55°	9122	3615	8883
60°	8437	3029	8198
65°	7762	2457	7456
70°	6900	1891	6575
75°	5803	1329	5379
80°	4360	809	4082
85°	2559	358	2421



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.7	2.2
10°-20°	453.2	6.2
20°-30°	663.9	9.1
30°-40°	760.9	10.5
40°-50°	750.1	10.3
50°-60°	646.6	8.9
60°-70°	471.4	6.5
70°-80°	257.1	3.5
80°-90°	67.5	0.9
90°-100°	56.8	0.8
100°-110°	205.0	2.8
110°-120°	363.0	5.0
120°-130°	482.6	6.6
130°-140°	542.7	7.5
140°-150°	533.6	7.3
150°-160°	450.3	6.2
160°-170°	298.7	4.1
170°-180°	104.1	1.4
0°-30°	1277.8	17.6
0°-40°	2038.7	28.0
0°-60°	3435.4	47.3
0°-90°	4231.4	58.2
90°-120°	624.8	8.6
90°-150°	2183.7	30.0
90°-180°	3037.0	41.8
0°-180°	7268.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1707	1707	1707	1707	1707	
5°	1712	1699	1688	1697	1708	162
15°	1627	1614	1603	1606	1619	458
25°	1466	1462	1419	1449	1452	675
35°	1250	1237	1174	1219	1232	782
45°	1004	984	928	967	985	775
55°	748	736	683	720	729	668
65°	496	485	448	473	477	491
75°	255	246	226	235	236	271
85°	58	59	55	56	55	66
90°	2	4	3	4	2	7
95°	47	52	51	48	37	52
105°	190	199	196	192	177	202
115°	366	376	369	364	351	362
125°	536	548	544	536	520	480
135°	701	715	708	702	680	541
145°	851	870	857	856	831	533
155°	979	989	986	979	961	451
165°	1068	1065	1059	1058	1055	301
175°	1112	1098	1079	1097	1105	106
180°	1100	1100	1100	1100	1100	



TEST NUMBER: P199475

CATALOG NUMBER: S124-DIW-U1-2-40-0048-1D-UDD-1-5-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1707.4	1707.4	1707.4	1707.4	1707.4	1707.4	1707.4	1707.4	1707.4
2.5°	1719.8	1700.2	1706.4	1702.2	1690.9	1702.2	1705.3	1699.1	1717.7
5°	1711.5	1692.9	1699.1	1692.9	1687.8	1691.9	1697.1	1689.8	1708.4
7.5°	1699.1	1679.5	1684.7	1679.5	1674.4	1678.5	1681.6	1675.4	1695.0
10°	1681.6	1660.9	1666.1	1659.9	1653.7	1657.8	1660.9	1654.7	1674.4
12.5°	1656.8	1637.2	1641.3	1637.2	1632.0	1633.1	1635.1	1628.9	1649.6
15°	1626.9	1607.3	1614.5	1610.4	1603.1	1607.3	1606.2	1599.0	1618.6
17.5°	1592.8	1574.2	1582.5	1578.4	1568.0	1574.2	1574.2	1562.9	1583.5
20°	1555.6	1536.0	1547.4	1537.1	1525.7	1531.9	1537.1	1523.6	1544.3
22.5°	1514.4	1493.7	1507.1	1488.5	1476.2	1483.4	1495.8	1481.3	1499.9
25°	1465.8	1449.3	1461.7	1435.9	1419.4	1429.7	1449.3	1434.9	1452.4
27.5°	1418.4	1401.8	1412.2	1383.3	1360.5	1374.0	1398.7	1386.4	1401.8
30°	1365.7	1352.3	1357.4	1323.4	1299.6	1314.1	1343.0	1335.8	1348.2
32.5°	1307.9	1297.6	1297.6	1261.4	1236.7	1253.2	1284.2	1282.1	1290.3
35°	1250.1	1243.9	1236.7	1197.4	1173.7	1189.2	1219.1	1227.4	1232.5
37.5°	1191.2	1187.1	1173.7	1135.5	1112.8	1129.3	1157.2	1169.6	1172.7
40°	1130.3	1128.3	1109.7	1073.6	1050.9	1067.4	1096.3	1111.8	1110.7
42.5°	1068.4	1070.5	1047.8	1012.7	990.0	1006.5	1033.3	1054.0	1048.8
45°	1004.4	1010.6	983.8	951.8	928.0	945.6	967.2	993.1	984.8
47.5°	942.5	949.7	921.8	888.8	866.1	884.7	906.3	934.2	921.8
50°	872.3	886.7	859.9	826.9	804.1	821.7	847.5	871.2	856.8
52.5°	811.4	821.7	798.0	766.0	744.3	758.7	784.5	808.3	792.8
55°	748.4	759.8	736.0	704.0	683.4	697.8	720.5	744.3	728.8
57.5°	682.3	693.7	672.0	643.1	623.5	639.0	662.7	679.2	664.8
60°	618.3	632.8	609.0	581.2	564.7	577.0	595.6	615.2	600.8
62.5°	556.4	569.8	547.1	521.3	505.8	517.2	536.8	552.3	538.8
65°	496.5	504.8	485.2	461.4	448.0	455.2	472.8	490.3	476.9
67.5°	435.6	443.9	424.3	403.6	390.2	397.4	411.9	428.4	416.0
70°	373.7	380.9	364.4	345.8	334.5	341.7	355.1	367.5	356.1
72.5°	314.8	320.0	304.5	290.1	281.8	287.0	296.3	307.6	302.5
75°	255.0	261.2	245.7	233.3	226.1	228.1	235.4	244.7	236.4
77.5°	198.2	204.4	192.0	182.7	178.6	179.6	184.8	192.0	181.7
80°	145.6	150.7	143.5	135.2	131.1	133.2	136.3	140.4	136.3
82.5°	98.1	103.2	98.1	92.9	89.8	91.9	92.9	95.0	91.9
85°	57.8	61.9	58.8	55.7	54.7	54.7	55.7	57.8	54.7
87.5°	25.8	28.9	26.8	24.8	21.7	22.7	23.7	25.8	23.7
90°	2.1	5.2	4.1	3.1	3.1	3.1	4.1	5.2	2.1
92.5°	21.5	24.4	25.1	22.9	22.9	22.2	20.8	20.1	12.9
95°	47.3	51.6	52.3	52.3	50.9	49.5	48.0	44.5	36.6
97.5°	76.7	81.7	83.2	81.7	82.5	81.0	77.4	73.8	66.0
100°	110.4	116.9	118.3	116.9	117.6	114.0	112.6	109.0	99.7
102.5°	147.7	155.6	156.3	154.9	154.9	152.0	150.6	146.3	136.9
105°	190.0	198.6	199.3	196.5	196.5	193.6	192.2	187.9	177.1
107.5°	233.0	241.6	241.6	238.8	238.8	236.6	233.7	230.9	220.1
110°	277.5	284.6	286.1	282.5	281.8	279.6	276.8	272.5	263.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	321.9	329.1	330.5	326.2	325.5	321.2	320.5	315.5	306.2
115°	366.4	373.5	375.7	370.7	369.2	364.2	364.2	359.2	350.6
117.5°	409.4	418.0	420.2	414.4	413.7	409.4	406.5	402.2	392.9
120°	452.4	463.2	464.6	458.2	457.4	452.4	451.0	445.2	435.9
122.5°	495.4	506.2	508.3	502.6	500.5	494.0	493.3	488.3	478.2
125°	536.3	548.5	548.5	545.6	543.5	538.5	535.6	529.9	519.8
127.5°	578.6	591.5	590.8	588.6	586.5	579.3	577.2	571.4	560.7
130°	620.2	631.7	631.7	630.2	628.8	622.3	618.8	613.0	600.8
132.5°	661.1	672.5	674.0	670.4	668.9	660.3	661.1	653.9	641.7
135°	701.2	711.2	714.8	709.1	708.4	699.1	701.9	692.6	680.4
137.5°	740.6	748.5	755.0	747.8	747.1	737.8	742.1	729.9	719.1
140°	779.4	785.8	794.4	785.8	784.4	775.8	780.1	767.2	757.9
142.5°	815.9	821.7	832.4	823.1	820.9	813.1	818.1	803.0	794.4
145°	851.1	855.4	869.7	859.7	856.8	849.6	856.1	837.4	831.0
147.5°	886.2	888.3	904.8	895.5	891.2	885.5	891.9	871.1	866.1
150°	919.2	919.2	935.7	928.5	924.9	918.5	922.8	902.7	899.1
152.5°	950.0	948.6	963.6	959.3	957.2	950.0	951.4	932.8	930.6
155°	978.7	975.8	989.4	987.3	985.9	978.7	978.7	960.0	960.8
157.5°	1005.9	1000.2	1013.1	1012.4	1009.5	1003.8	1002.3	985.9	988.0
160°	1029.6	1024.6	1033.2	1031.7	1029.6	1023.9	1023.9	1009.5	1013.1
162.5°	1050.4	1043.9	1051.1	1046.8	1046.1	1039.6	1042.5	1030.3	1035.3
165°	1068.3	1061.9	1065.4	1059.7	1059.0	1053.3	1058.3	1049.7	1055.4
167.5°	1084.1	1076.9	1076.2	1071.2	1069.7	1065.4	1071.2	1066.2	1072.6
170°	1096.3	1089.1	1086.9	1078.3	1076.9	1073.3	1081.9	1080.5	1086.2
172.5°	1105.6	1098.4	1093.4	1083.4	1078.3	1079.1	1090.5	1090.5	1097.0
175°	1112.0	1104.2	1098.4	1088.4	1079.1	1084.8	1097.0	1097.7	1104.9
177.5°	1113.5	1105.6	1100.6	1091.3	1087.7	1088.4	1101.3	1101.3	1109.2
180°	1099.9	1099.9	1099.9	1099.9	1099.9	1099.9	1099.9	1099.9	1099.9

(END OF REPORT)