

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: P199476

Luminaire Tested: **S124-DIP-U1-2-40-X-X0048-1D-UDD-1-NA-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199476
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P28062 P28061)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124-DIP-U1-2-40-X-X0048-1D-UDD-1-NA-W
Description: DEFINE 4-INCH DIRECT/INDIRECT PENDANT LED LUMINAIRE
UPLIGHT LL1-4000K, NO LENS
DOWNLIGHT LL2-4000K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7861.4 lumens
Efficiency: N/A
Efficacy: 117.3 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

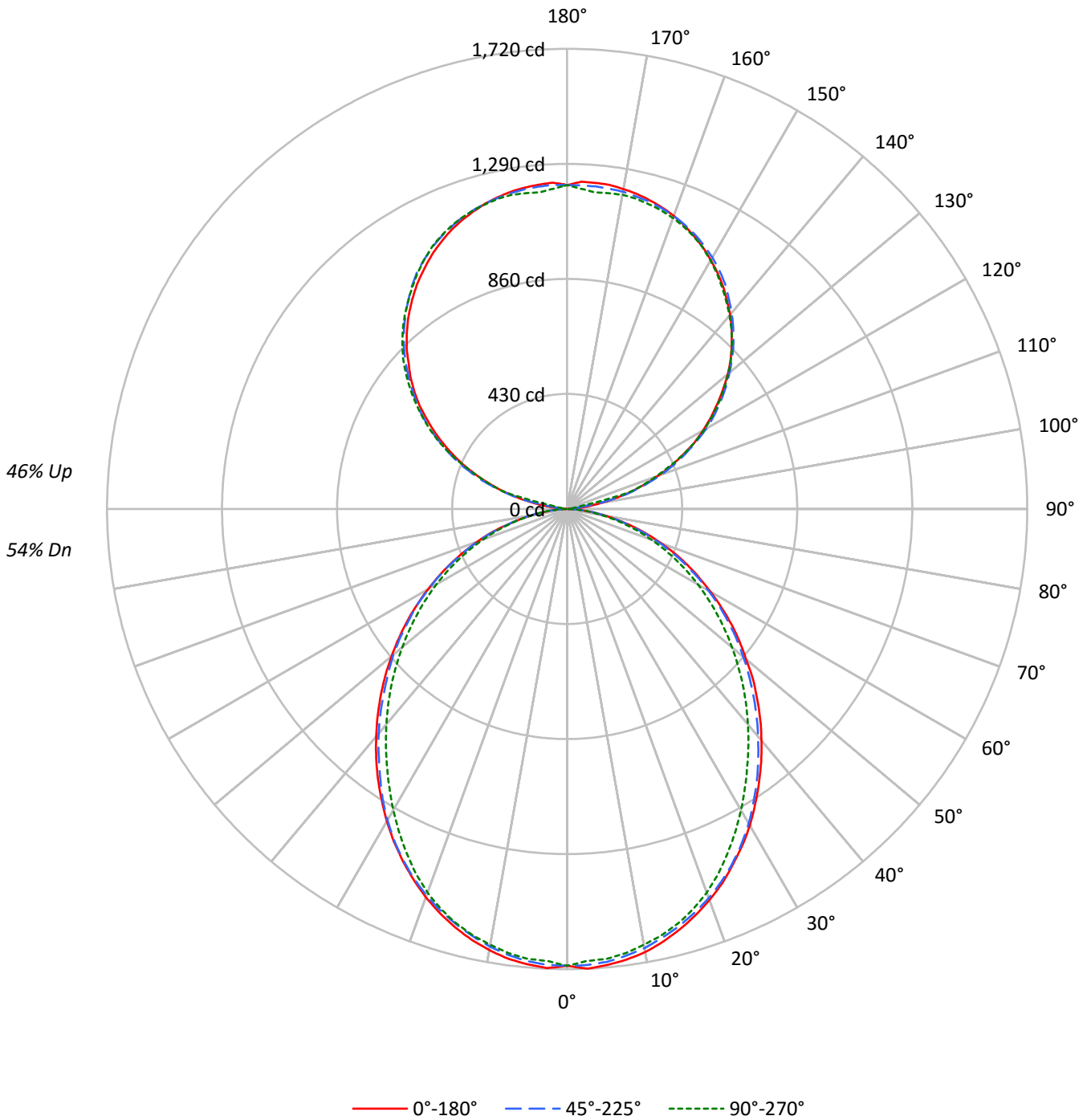
Input Watts (W): 67
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	108	108	108	100	100	100	100	85	85	85	72	72	72	60	60	60	54
1	99	94	91	87	91	88	84	81	75	73	70	64	62	60	53	52	51	46
2	90	83	76	71	83	77	71	67	66	62	58	56	53	50	47	45	43	38
3	82	73	65	59	76	68	61	56	58	53	49	50	46	43	41	39	36	33
4	75	64	56	50	69	60	53	48	52	46	42	44	40	37	37	34	32	28
5	69	57	49	43	64	54	46	41	46	41	36	40	35	32	33	30	28	24
6	64	52	43	38	59	48	41	36	42	36	32	36	31	28	30	27	24	21
7	59	47	39	33	55	44	36	31	38	32	28	33	28	25	28	24	22	19
8	55	42	35	29	51	40	33	28	35	29	25	30	25	22	26	22	19	17
9	51	39	31	26	47	36	30	25	32	26	22	28	23	20	24	20	18	15
10	48	36	28	23	44	33	27	22	29	24	20	26	21	18	22	18	16	14

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	2.0
10°-20°	453.2	5.8
20°-30°	663.9	8.4
30°-40°	760.9	9.7
40°-50°	750.1	9.5
50°-60°	646.6	8.2
60°-70°	471.4	6.0
70°-80°	257.1	3.3
80°-90°	67.5	0.9
90°-100°	31.1	0.4
100°-110°	244.6	3.1
110°-120°	473.4	6.0
120°-130°	615.6	7.8
130°-140°	668.3	8.5
140°-150°	632.3	8.0
150°-160°	515.8	6.6
160°-170°	333.9	4.2
170°-180°	114.9	1.5
0°-30°	1277.8	16.3
0°-40°	2038.7	25.9
0°-60°	3435.4	43.7
0°-90°	4231.4	53.8
90°-120°	749.2	9.5
90°-150°	2665.3	33.9
90°-180°	3630.0	46.2
0°-180°	7861.4	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	6
95°	42	11	12	12	38	54
105°	244	250	240	244	237	257
115°	475	488	478	481	463	471
125°	685	700	691	684	673	613
135°	870	880	871	862	848	671
145°	1016	1028	1010	1013	994	635
155°	1124	1131	1122	1120	1106	519
165°	1194	1189	1179	1182	1182	337
175°	1223	1210	1188	1210	1217	116
180°	1210	1210	1210	1210	1210	



TEST NUMBER: P199476

CATALOG NUMBER: S124-DIP-U1-2-40-X-X0048-1D-UDD-1-NA-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°	13.6	7.2	7.2	7.2	7.2	7.2	7.2	7.9	9.3
95°	42.3	27.2	10.8	11.5	11.5	11.5	11.5	18.6	38.0
97.5°	82.5	96.1	20.8	13.6	13.6	13.6	20.8	91.1	76.7
100°	130.5	143.4	104.7	33.0	24.4	30.8	91.8	135.5	124.0
102.5°	184.3	200.8	192.9	108.3	62.4	92.5	187.1	192.2	179.2
105°	243.8	258.1	250.2	253.8	240.2	244.5	244.5	247.4	236.6
107.5°	302.6	314.8	310.5	307.6	296.8	299.7	306.9	305.4	293.2
110°	361.4	373.5	373.5	364.2	351.3	356.3	367.8	360.6	350.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	420.2	429.5	431.6	426.6	411.5	418.7	425.2	413.7	407.2
115°	475.4	489.0	487.5	488.3	477.5	477.5	481.1	472.5	463.2
117.5°	534.9	544.9	542.8	543.5	536.3	533.4	532.7	527.0	516.9
120°	587.2	598.7	600.1	595.1	590.1	584.3	587.9	580.0	569.3
122.5°	636.7	649.6	651.7	646.7	641.7	635.2	638.1	629.5	619.5
125°	685.4	699.8	699.8	696.2	691.2	684.7	684.0	676.8	673.2
127.5°	734.2	750.7	747.8	744.2	739.9	732.8	729.2	724.9	719.1
130°	783.7	795.1	792.3	789.4	786.5	777.9	775.1	770.8	764.3
132.5°	828.8	835.3	836.7	831.0	831.0	820.2	819.5	814.5	803.0
135°	870.4	876.9	879.7	871.1	871.1	860.4	862.5	855.4	848.2
137.5°	909.9	914.9	918.5	908.4	909.1	899.1	902.7	890.5	887.6
140°	947.9	950.0	956.5	945.7	944.3	935.7	940.7	928.5	924.9
142.5°	981.6	984.4	992.3	980.8	977.3	970.8	977.3	962.2	960.0
145°	1016.0	1016.7	1028.2	1014.5	1010.2	1005.2	1013.1	995.2	993.7
147.5°	1046.1	1044.6	1058.3	1046.8	1042.5	1037.5	1046.1	1025.3	1025.3
150°	1074.0	1072.6	1085.5	1076.2	1071.9	1067.6	1072.6	1053.3	1053.3
152.5°	1101.3	1096.3	1109.2	1101.3	1099.9	1093.4	1097.7	1079.1	1081.9
155°	1124.2	1119.2	1131.4	1124.9	1122.1	1117.1	1119.9	1102.0	1106.3
157.5°	1146.5	1138.6	1149.3	1146.5	1141.4	1138.6	1138.6	1124.2	1129.3
160°	1165.8	1156.5	1165.8	1161.5	1157.2	1153.6	1156.5	1142.2	1148.6
162.5°	1181.6	1173.0	1178.0	1172.3	1170.1	1164.4	1170.1	1158.6	1165.8
165°	1194.5	1185.2	1188.8	1180.9	1179.4	1175.1	1182.3	1174.4	1181.6
167.5°	1206.0	1197.4	1195.9	1188.0	1188.0	1182.3	1190.9	1186.6	1193.8
170°	1213.9	1206.7	1203.8	1192.3	1192.3	1187.3	1199.5	1195.9	1204.5
172.5°	1221.7	1212.4	1207.4	1195.2	1190.2	1190.9	1206.0	1203.1	1211.7
175°	1223.2	1216.0	1210.3	1197.4	1188.0	1194.5	1209.6	1210.3	1216.7
177.5°	1224.6	1217.4	1210.3	1199.5	1198.1	1196.6	1212.4	1211.7	1221.0
180°	1210.3	1210.3	1210.3	1210.3	1210.3	1210.3	1210.3	1210.3	1210.3

(END OF REPORT)