

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: P199404

Luminaire Tested: **S122-DIP-U2-1-35-X-X0048-1D-UDD-1-5-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199404
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P27883 P27883)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122-DIP-U2-1-35-X-X0048-1D-UDD-1-5-W
Description: DEFINE 2-INCH DIRECT/INDIRECT PENDANT LED LUMINAIRE
UPLIGHT LL2-3500K, SATIN WHITE DIFFUSER
DOWNLIGHT LL1-3500K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6510.5 lumens
Efficiency: N/A
Efficacy: 99.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.17 / 1.31
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4.08' x H: 0.38')
CIE Type: Semi-Indirect

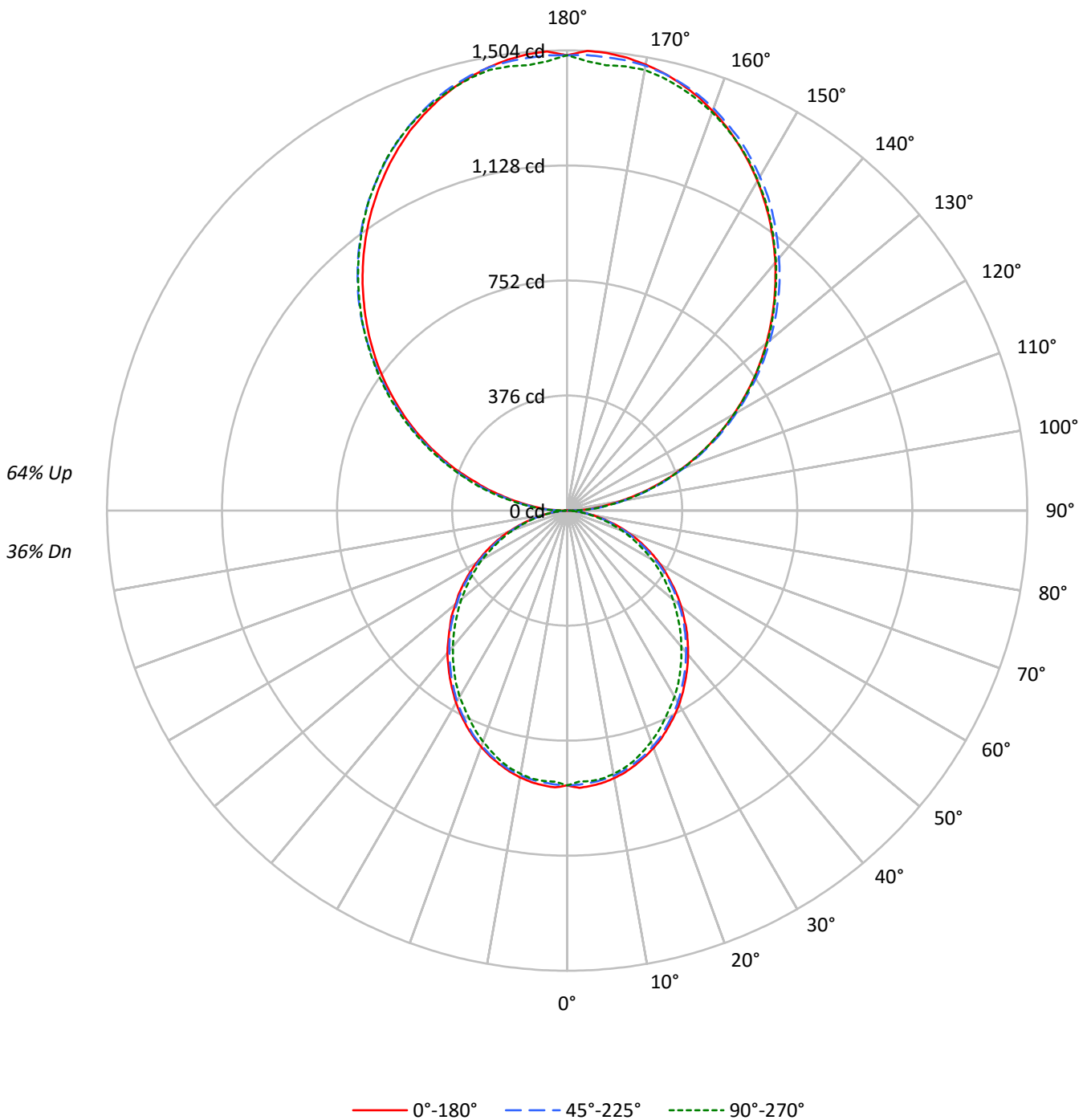
Input Watts (W): 65.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	43	43	43	36
1	95	90	87	83	85	82	79	76	66	64	62	51	50	49	38	37	36	30
2	86	79	73	68	78	72	66	62	58	54	51	45	43	41	33	32	30	25
3	79	69	62	56	71	63	57	52	51	47	43	40	37	34	30	28	26	21
4	72	61	54	48	65	56	49	44	45	40	37	35	32	29	26	24	22	18
5	66	54	47	41	59	50	43	38	40	35	31	32	28	25	24	21	19	16
6	61	49	41	35	55	44	38	33	36	31	27	29	25	22	22	19	17	14
7	56	44	36	31	50	40	33	28	33	28	24	26	22	20	20	17	15	12
8	52	40	32	27	47	36	30	25	30	25	21	24	20	17	18	15	14	11
9	48	36	29	24	44	33	27	22	27	22	19	22	18	16	17	14	12	10
10	45	33	26	21	41	30	24	20	25	20	17	20	17	14	15	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	14204	14204	14204
5°	14221	11766	14199
10°	14029	10047	13996
15°	13764	8642	13708
20°	13450	7436	13383
25°	13076	6418	13006
30°	12697	5578	12588
35°	12234	4827	12122
40°	11783	4152	11676
45°	11312	3552	11114
50°	10783	3013	10552
55°	10192	2523	10024
60°	9593	2068	9344
65°	8861	1624	8558
70°	7950	1221	7566
75°	6640	822	6194
80°	4953	478	4492
85°	3072	189	2585



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.7	1.3
10°-20°	239.7	3.7
20°-30°	353.5	5.4
30°-40°	412.3	6.3
40°-50°	413.1	6.3
50°-60°	361.4	5.6
60°-70°	265.9	4.1
70°-80°	144.1	2.2
80°-90°	36.9	0.6
90°-100°	103.0	1.6
100°-110°	302.8	4.7
110°-120°	509.3	7.8
120°-130°	664.2	10.2
130°-140°	740.5	11.4
140°-150°	724.1	11.1
150°-160°	609.1	9.4
160°-170°	404.9	6.2
170°-180°	141.0	2.2
0°-30°	677.9	10.4
0°-40°	1090.2	16.7
0°-60°	1864.7	28.6
0°-90°	2311.7	35.5
90°-120°	915.1	14.1
90°-150°	3043.8	46.8
90°-180°	4199.0	64.5
0°-180°	6510.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	898	898	898	898	898	
5°	903	892	887	892	902	86
15°	861	854	846	853	858	243
25°	781	774	754	772	777	360
35°	674	665	644	660	668	422
45°	552	542	516	537	542	425
55°	418	410	386	403	411	374
65°	283	272	253	264	274	280
75°	146	139	126	130	136	155
85°	35	33	28	28	29	39
90°	1	4	5	4	1	10
95°	86	99	98	93	81	89
105°	284	296	292	282	267	300
115°	515	523	515	508	497	509
125°	741	753	743	738	724	662
135°	956	975	959	963	937	737
145°	1155	1174	1159	1161	1136	722
155°	1323	1337	1324	1323	1306	609
165°	1443	1446	1431	1438	1431	407
175°	1501	1487	1461	1485	1497	143
180°	1488	1488	1488	1488	1488	



TEST NUMBER: P199404

CATALOG NUMBER: S122-DIP-U2-1-35-X-X0048-1D-UDD-1-5-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	898.1	898.1	898.1	898.1	898.1	898.1	898.1	898.1	898.1
2.5°	907.1	894.6	896.7	893.9	887.0	893.2	896.0	893.9	905.7
5°	902.9	890.4	892.5	889.0	887.0	889.0	891.8	889.0	901.5
7.5°	897.4	883.5	887.7	885.6	883.5	884.9	887.0	882.1	895.3
10°	887.7	873.8	880.0	875.8	873.8	875.2	878.6	871.7	885.6
12.5°	876.5	862.7	868.9	864.0	862.0	862.0	868.2	860.6	873.1
15°	861.3	850.1	854.3	849.5	846.0	848.1	852.9	847.4	857.8
17.5°	843.9	834.2	839.0	831.4	825.1	830.0	837.0	830.7	841.1
20°	825.8	814.7	819.6	809.2	803.6	807.8	816.8	811.9	821.7
22.5°	805.7	795.3	799.4	785.6	780.0	783.5	796.7	791.8	800.8
25°	781.4	773.1	773.7	759.9	753.6	757.8	771.7	768.9	777.2
27.5°	757.8	749.4	750.1	734.2	727.2	732.8	746.7	744.6	752.2
30°	732.1	724.4	723.7	707.8	702.2	705.7	719.6	719.6	725.8
32.5°	703.6	697.3	693.9	679.3	673.7	677.9	689.7	691.8	696.6
35°	674.4	670.3	665.4	651.5	643.9	649.4	660.5	663.3	668.2
37.5°	645.3	640.4	634.8	620.9	612.6	619.6	629.3	634.1	637.6
40°	614.7	611.2	605.0	591.1	580.7	587.6	598.7	604.3	609.1
42.5°	583.4	581.4	573.7	559.1	548.7	556.3	568.2	573.0	575.1
45°	552.2	549.4	542.5	527.2	516.1	524.4	536.9	541.8	542.5
47.5°	517.5	518.1	509.8	494.5	483.4	491.8	502.9	509.8	512.6
50°	486.2	486.9	477.2	461.9	450.8	457.0	470.2	477.2	475.8
52.5°	452.9	454.9	444.5	429.2	418.1	424.4	437.6	445.2	445.9
55°	418.1	421.6	410.5	395.2	385.5	391.7	402.8	411.9	411.2
57.5°	384.8	387.6	376.5	362.6	352.8	358.4	368.1	379.9	377.1
60°	351.5	354.2	342.4	328.5	320.2	323.0	334.1	343.8	342.4
62.5°	317.4	320.2	307.7	295.2	285.5	289.6	299.4	311.2	307.7
65°	283.4	285.5	272.3	261.2	252.8	257.0	263.9	276.4	273.7
67.5°	249.3	250.7	238.9	228.5	221.6	223.7	229.9	240.3	238.9
70°	215.3	216.7	205.6	195.9	189.6	191.7	196.6	206.3	204.9
72.5°	180.6	182.7	171.6	162.5	156.3	158.4	161.8	170.9	168.8
75°	145.9	147.2	138.9	132.0	126.4	127.1	129.9	136.8	136.1
77.5°	113.9	117.4	108.4	102.1	97.9	98.6	102.1	105.6	104.2
80°	82.7	86.8	80.6	75.7	72.2	71.5	74.3	77.1	75.0
82.5°	58.3	59.0	54.9	51.4	47.9	47.9	50.0	52.1	50.0
85°	34.7	36.1	32.6	29.9	27.8	27.1	28.5	30.6	29.2
87.5°	16.7	17.4	13.9	12.5	10.4	9.7	10.4	11.8	11.8
90°	1.4	3.5	3.5	4.2	4.9	4.9	4.2	4.2	0.7
92.5°	54.0	60.0	63.0	61.0	60.0	57.0	57.0	54.0	48.0
95°	86.0	95.0	99.0	98.0	98.0	94.0	93.0	90.0	81.0
97.5°	127.0	137.0	140.0	141.0	140.0	135.0	132.0	129.0	119.0
100°	174.0	184.0	187.0	187.0	186.0	181.0	177.0	173.0	162.0
102.5°	226.0	236.0	239.0	237.0	237.0	230.0	226.0	223.0	211.0
105°	284.0	294.0	296.0	293.0	292.0	285.0	282.0	278.0	267.0
107.5°	340.0	350.0	349.0	348.0	344.0	339.0	337.0	331.0	317.0
110°	398.0	411.0	406.0	404.0	400.0	395.0	393.0	391.0	380.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	456.0	470.0	464.0	462.0	457.0	451.0	451.0	450.0	439.0
115°	515.0	529.0	523.0	519.0	515.0	509.0	508.0	509.0	497.0
117.5°	572.0	588.0	581.0	576.0	572.0	565.0	566.0	568.0	555.0
120°	629.0	647.0	639.0	633.0	630.0	622.0	623.0	627.0	612.0
122.5°	685.0	703.0	696.0	690.0	687.0	678.0	680.0	682.0	668.0
125°	741.0	759.0	753.0	746.0	743.0	737.0	738.0	738.0	724.0
127.5°	796.0	814.0	810.0	802.0	798.0	790.0	794.0	791.0	779.0
130°	850.0	867.0	865.0	856.0	853.0	848.0	851.0	842.0	833.0
132.5°	903.0	920.0	921.0	911.0	907.0	902.0	908.0	898.0	886.0
135°	956.0	971.0	975.0	964.0	959.0	955.0	963.0	947.0	937.0
137.5°	1007.0	1019.0	1028.0	1015.0	1011.0	1004.0	1014.0	998.0	989.0
140°	1059.0	1069.0	1077.0	1067.0	1062.0	1056.0	1064.0	1048.0	1039.0
142.5°	1107.0	1118.0	1126.0	1116.0	1110.0	1105.0	1113.0	1096.0	1088.0
145°	1155.0	1164.0	1174.0	1165.0	1159.0	1154.0	1161.0	1144.0	1136.0
147.5°	1200.0	1208.0	1220.0	1210.0	1204.0	1200.0	1205.0	1188.0	1181.0
150°	1244.0	1248.0	1260.0	1254.0	1246.0	1242.0	1246.0	1231.0	1225.0
152.5°	1285.0	1288.0	1299.0	1292.0	1288.0	1281.0	1286.0	1271.0	1267.0
155°	1323.0	1324.0	1337.0	1329.0	1324.0	1319.0	1323.0	1311.0	1306.0
157.5°	1359.0	1359.0	1368.0	1364.0	1356.0	1354.0	1357.0	1344.0	1343.0
160°	1390.0	1388.0	1399.0	1392.0	1385.0	1383.0	1388.0	1376.0	1375.0
162.5°	1419.0	1415.0	1425.0	1416.0	1410.0	1408.0	1415.0	1404.0	1405.0
165°	1443.0	1438.0	1446.0	1437.0	1431.0	1430.0	1438.0	1427.0	1431.0
167.5°	1464.0	1456.0	1463.0	1454.0	1449.0	1448.0	1457.0	1447.0	1453.0
170°	1480.0	1470.0	1476.0	1464.0	1462.0	1460.0	1471.0	1462.0	1472.0
172.5°	1493.0	1482.0	1484.0	1471.0	1464.0	1468.0	1480.0	1475.0	1486.0
175°	1501.0	1489.0	1487.0	1473.0	1461.0	1470.0	1485.0	1484.0	1497.0
177.5°	1504.0	1493.0	1490.0	1474.0	1470.0	1472.0	1489.0	1490.0	1502.0
180°	1488.0	1488.0	1488.0	1488.0	1488.0	1488.0	1488.0	1488.0	1488.0

(END OF REPORT)