

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: P199429

Luminaire Tested: **S122-DIP-ULO-2-35-X-X0048-1D-UDD-1-NA-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199429
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P27883 P27986)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122-DIP-ULO-2-35-X-X0048-1D-UDD-1-NA-W
Description: DEFINE 2-INCH DIRECT/INDIRECT PENDANT LED LUMINAIRE
UPLIGHT LLO-3500K, NO LENS
DOWNLIGHT LL2-3500K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5076.7 lumens
Efficiency: N/A
Efficacy: 92.1 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-Direct

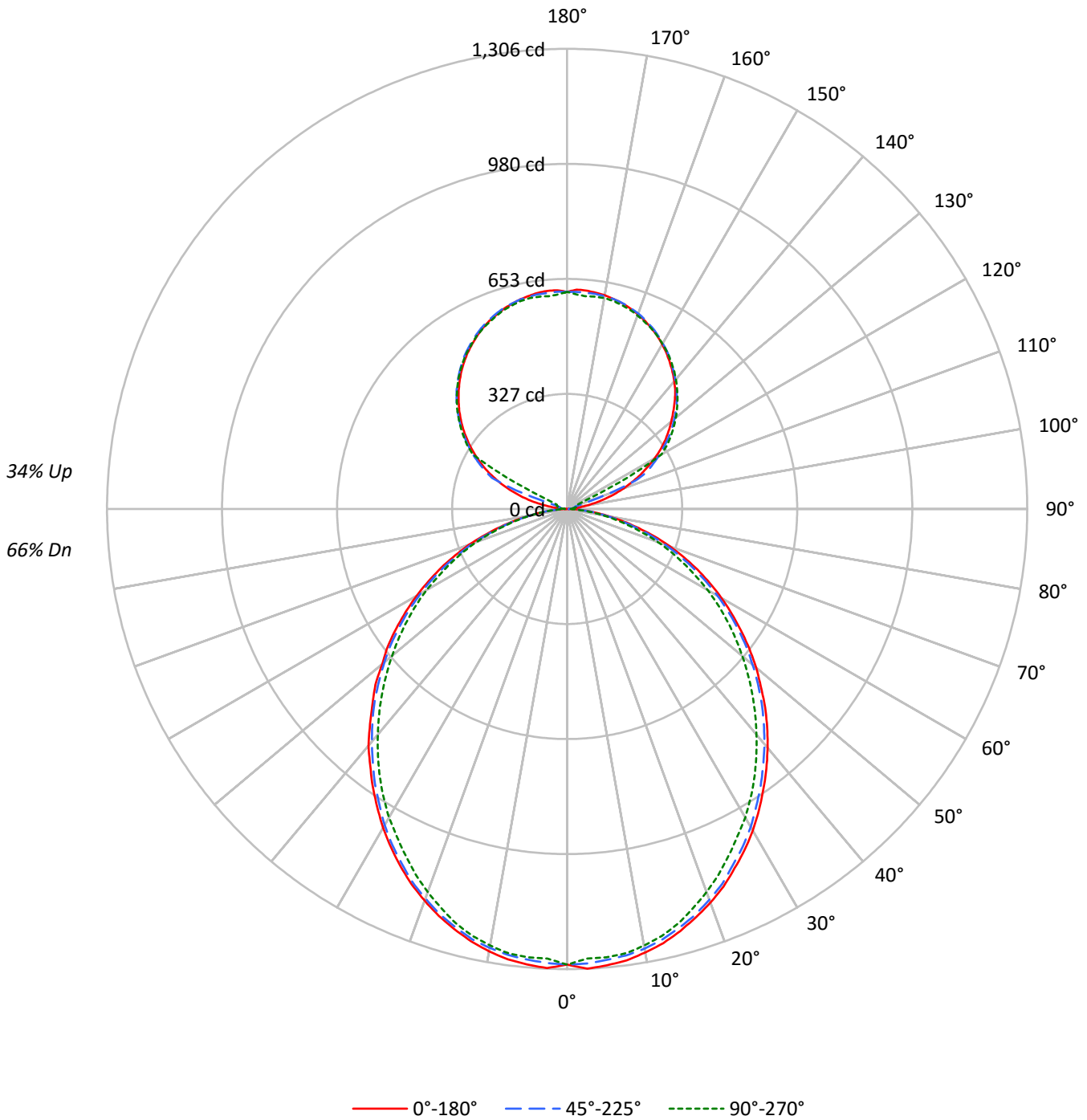
Input Watts (W): 55.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	70	70	70	66
1	101	97	93	89	95	91	88	85	81	78	76	71	69	67	62	61	60	55
2	92	85	78	73	87	80	74	70	71	67	63	63	59	56	55	52	50	46
3	84	75	67	61	79	70	64	58	63	57	53	55	51	48	49	46	43	39
4	77	66	58	52	72	62	55	49	56	50	45	49	45	41	44	40	37	34
5	71	59	51	44	66	56	48	43	50	44	39	44	39	36	39	35	32	29
6	65	53	45	39	61	50	43	37	45	39	34	40	35	31	36	32	28	26
7	61	48	40	34	57	45	38	33	41	35	30	37	31	28	33	28	25	23
8	56	44	36	30	53	41	34	29	37	31	27	34	28	25	30	26	23	20
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	28	23	20	18
10	49	37	29	24	46	35	28	23	32	26	22	29	24	20	26	22	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	20450	20450	20450
5°	20475	16940	20443
10°	20198	14465	20150
15°	19816	12442	19736
20°	19365	10706	19267
25°	18826	9240	18726
30°	18280	8031	18124
35°	17615	6950	17452
40°	16965	5977	16811
45°	16286	5114	16000
50°	15525	4338	15192
55°	14675	3632	14431
60°	13809	2978	13454
65°	12757	2339	12319
70°	11447	1758	10893
75°	9557	1184	8920
80°	7127	688	6468
85°	4427	272	3718



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.9	2.4
10°-20°	345.1	6.8
20°-30°	509.0	10.0
30°-40°	593.6	11.7
40°-50°	594.8	11.7
50°-60°	520.3	10.2
60°-70°	382.8	7.5
70°-80°	207.5	4.1
80°-90°	53.2	1.0
90°-100°	15.8	0.3
100°-110°	69.2	1.4
110°-120°	201.1	4.0
120°-130°	314.2	6.2
130°-140°	338.7	6.7
140°-150°	320.1	6.3
150°-160°	261.0	5.1
160°-170°	169.9	3.3
170°-180°	58.5	1.2
0°-30°	976.0	19.2
0°-40°	1569.6	30.9
0°-60°	2684.7	52.9
0°-90°	3328.2	65.6
90°-120°	286.0	5.6
90°-150°	1259.1	24.8
90°-180°	1749.0	34.5
0°-180°	5076.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1293	1293	1293	1293	1293	
5°	1300	1285	1277	1284	1298	123
15°	1240	1230	1218	1228	1235	350
25°	1125	1114	1085	1111	1119	519
35°	971	958	927	951	962	608
45°	795	781	743	773	781	612
55°	602	591	555	580	592	539
65°	408	392	364	380	394	404
75°	210	200	182	187	196	224
85°	50	47	40	41	42	56
90°	2	5	7	6	1	4
95°	15	12	14	14	26	21
105°	111	24	29	24	131	118
115°	230	249	51	257	246	226
125°	339	350	359	356	348	303
135°	432	440	443	444	436	333
145°	508	512	513	516	510	318
155°	566	569	565	570	566	261
165°	605	605	599	604	603	171
175°	622	616	606	616	621	59
180°	616	616	616	616	616	



TEST NUMBER: P199429

CATALOG NUMBER: S122-DIP-ULO-2-35-X-X0048-1D-UDD-1-NA-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0
2.5°	1306.0	1288.0	1291.0	1287.0	1277.0	1286.0	1290.0	1287.0	1304.0
5°	1300.0	1282.0	1285.0	1280.0	1277.0	1280.0	1284.0	1280.0	1298.0
7.5°	1292.0	1272.0	1278.0	1275.0	1272.0	1274.0	1277.0	1270.0	1289.0
10°	1278.0	1258.0	1267.0	1261.0	1258.0	1260.0	1265.0	1255.0	1275.0
12.5°	1262.0	1242.0	1251.0	1244.0	1241.0	1241.0	1250.0	1239.0	1257.0
15°	1240.0	1224.0	1230.0	1223.0	1218.0	1221.0	1228.0	1220.0	1235.0
17.5°	1215.0	1201.0	1208.0	1197.0	1188.0	1195.0	1205.0	1196.0	1211.0
20°	1189.0	1173.0	1180.0	1165.0	1157.0	1163.0	1176.0	1169.0	1183.0
22.5°	1160.0	1145.0	1151.0	1131.0	1123.0	1128.0	1147.0	1140.0	1153.0
25°	1125.0	1113.0	1114.0	1094.0	1085.0	1091.0	1111.0	1107.0	1119.0
27.5°	1091.0	1079.0	1080.0	1057.0	1047.0	1055.0	1075.0	1072.0	1083.0
30°	1054.0	1043.0	1042.0	1019.0	1011.0	1016.0	1036.0	1036.0	1045.0
32.5°	1013.0	1004.0	999.0	978.0	970.0	976.0	993.0	996.0	1003.0
35°	971.0	965.0	958.0	938.0	927.0	935.0	951.0	955.0	962.0
37.5°	929.0	922.0	914.0	894.0	882.0	892.0	906.0	913.0	918.0
40°	885.0	880.0	871.0	851.0	836.0	846.0	862.0	870.0	877.0
42.5°	840.0	837.0	826.0	805.0	790.0	801.0	818.0	825.0	828.0
45°	795.0	791.0	781.0	759.0	743.0	755.0	773.0	780.0	781.0
47.5°	745.0	746.0	734.0	712.0	696.0	708.0	724.0	734.0	738.0
50°	700.0	701.0	687.0	665.0	649.0	658.0	677.0	687.0	685.0
52.5°	652.0	655.0	640.0	618.0	602.0	611.0	630.0	641.0	642.0
55°	602.0	607.0	591.0	569.0	555.0	564.0	580.0	593.0	592.0
57.5°	554.0	558.0	542.0	522.0	508.0	516.0	530.0	547.0	543.0
60°	506.0	510.0	493.0	473.0	461.0	465.0	481.0	495.0	493.0
62.5°	457.0	461.0	443.0	425.0	411.0	417.0	431.0	448.0	443.0
65°	408.0	411.0	392.0	376.0	364.0	370.0	380.0	398.0	394.0
67.5°	359.0	361.0	344.0	329.0	319.0	322.0	331.0	346.0	344.0
70°	310.0	312.0	296.0	282.0	273.0	276.0	283.0	297.0	295.0
72.5°	260.0	263.0	247.0	234.0	225.0	228.0	233.0	246.0	243.0
75°	210.0	212.0	200.0	190.0	182.0	183.0	187.0	197.0	196.0
77.5°	164.0	169.0	156.0	147.0	141.0	142.0	147.0	152.0	150.0
80°	119.0	125.0	116.0	109.0	104.0	103.0	107.0	111.0	108.0
82.5°	84.0	85.0	79.0	74.0	69.0	69.0	72.0	75.0	72.0
85°	50.0	52.0	47.0	43.0	40.0	39.0	41.0	44.0	42.0
87.5°	24.0	25.0	20.0	18.0	15.0	14.0	15.0	17.0	17.0
90°	2.0	5.0	5.0	6.0	7.0	7.0	6.0	6.0	1.0
92.5°	2.1	5.0	5.0	6.1	6.4	7.5	8.6	8.9	9.6
95°	15.0	10.7	12.1	13.2	13.9	15.0	14.3	13.2	26.1
97.5°	33.5	13.6	17.1	17.8	18.9	19.3	19.3	15.0	47.5
100°	56.0	15.7	20.3	23.2	23.9	23.9	21.8	33.5	73.2
102.5°	82.4	70.0	22.1	25.7	27.1	26.1	23.2	113.9	101.7
105°	111.0	126.0	23.6	27.1	28.6	27.8	24.3	140.3	130.6
107.5°	141.0	152.8	25.0	28.6	30.0	28.9	29.6	167.4	159.5
110°	171.0	180.9	112.1	29.6	31.1	29.6	155.3	194.9	188.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	199.5	209.9	210.6	31.4	31.8	33.9	230.9	222.7	217.4
115°	229.5	238.1	249.1	144.9	50.7	159.5	257.3	250.2	245.5
117.5°	257.0	265.2	273.7	254.8	194.2	277.3	282.7	277.3	272.7
120°	285.9	294.1	299.4	308.0	308.7	308.7	307.6	303.4	298.4
122.5°	314.4	319.8	324.1	332.6	335.5	332.3	331.6	327.6	323.7
125°	339.4	344.4	350.1	355.8	358.7	355.5	355.8	350.8	348.0
127.5°	363.0	367.2	374.7	378.3	381.2	377.6	379.0	373.7	371.5
130°	385.8	388.7	397.2	400.1	402.6	400.4	401.5	395.8	394.0
132.5°	408.3	412.2	419.4	420.4	423.3	420.1	424.0	416.1	415.4
135°	431.8	435.1	440.4	440.8	442.9	441.1	444.3	437.9	435.8
137.5°	454.0	455.4	460.0	458.6	461.8	459.0	463.6	457.2	455.8
140°	473.2	474.3	477.5	478.2	480.4	477.9	481.5	475.0	474.3
142.5°	491.1	492.5	495.4	495.0	497.5	495.0	499.3	493.6	492.9
145°	507.9	510.0	512.5	511.4	513.2	511.8	516.1	510.0	509.7
147.5°	524.6	525.4	528.9	527.1	528.2	526.4	531.1	526.1	525.4
150°	539.3	540.7	542.8	540.7	541.1	540.0	544.6	540.3	539.6
152.5°	553.9	553.6	556.8	552.5	554.3	552.5	557.8	553.6	553.6
155°	565.7	565.3	569.3	564.6	565.3	563.9	570.0	565.0	566.0
157.5°	577.5	575.7	580.3	575.7	574.3	575.3	580.0	575.3	577.5
160°	587.8	586.0	590.3	585.3	584.2	585.0	590.0	585.7	586.4
162.5°	596.7	594.2	598.2	592.8	592.8	591.7	598.2	593.9	596.0
165°	604.6	601.7	604.9	599.6	598.9	598.2	603.9	601.0	603.2
167.5°	610.3	607.4	610.3	604.2	604.9	603.5	609.2	607.4	609.9
170°	615.7	612.1	613.2	607.8	607.8	606.7	612.8	611.0	614.6
172.5°	619.2	615.3	615.3	609.2	607.8	608.5	614.9	614.6	619.6
175°	622.4	617.1	615.7	609.9	606.0	609.6	615.7	616.7	621.4
177.5°	623.1	618.2	616.7	610.3	609.2	609.6	617.1	617.4	621.4
180°	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0

(END OF REPORT)