

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: P199400

Luminaire Tested: **S122-DIP-U1-LO-40-X-X0048-1D-UDD-1-5-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199400
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-U1-LO-40-X-X0048-1D-UDD-1-5-W
Description: DEFINE 2-INCH DIRECT/INDIRECT PENDANT LED LUMINAIRE
UPLIGHT LL1-4000K, SATIN WHITE DIFFUSER
DOWNLIGHT LLO-4000K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4236.5 lumens
Efficiency: N/A
Efficacy: 109.2 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

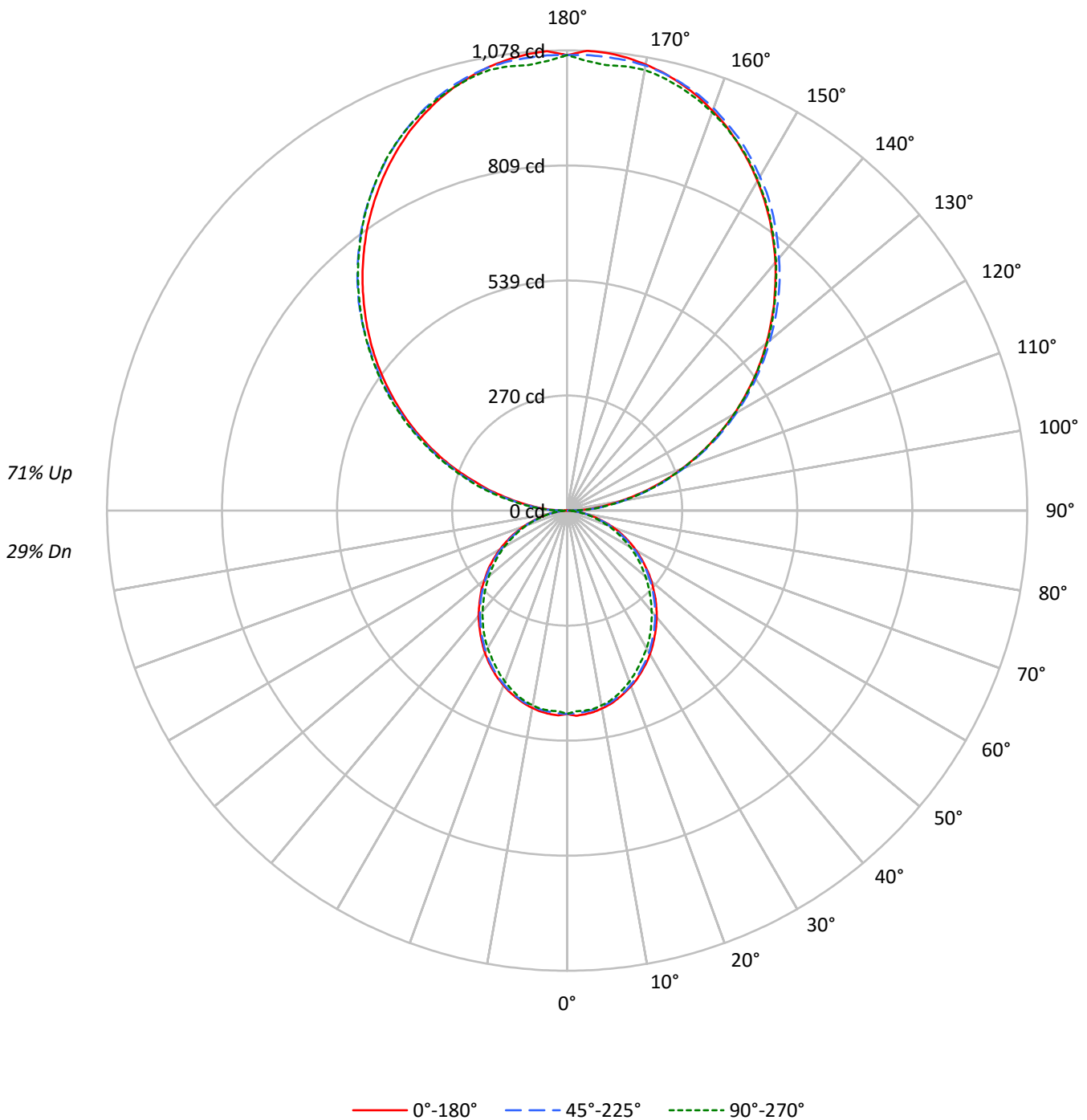
Input Watts (W): 38.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10	0		
RCR																										
0	102	102	102	102	91	91	91	91	72	72	72	53	53	53	37	37	37	29					29			
1	93	89	85	82	83	80	77	74	63	61	59	47	46	44	33	32	31	24					24			
2	85	78	72	67	76	70	65	61	55	51	49	41	39	37	29	27	26	20					20			
3	77	68	61	56	69	61	55	51	48	44	41	36	34	31	25	24	22	17					17			
4	71	60	53	47	63	54	48	43	43	38	35	32	29	27	23	21	19	15					15			
5	65	53	46	40	58	48	42	36	38	33	30	29	26	23	20	18	17	13					13			
6	59	48	40	34	53	43	36	32	34	29	26	26	23	20	18	16	15	11					11			
7	55	43	35	30	49	39	32	28	31	26	23	24	20	18	17	15	13	10					10			
8	51	39	31	26	45	35	29	24	28	23	20	22	18	16	15	13	12	9					9			
9	47	35	28	23	42	32	26	21	26	21	18	20	16	14	14	12	10	8					8			
10	44	32	25	21	39	29	23	19	24	19	16	18	15	13	13	11	9	7					7			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	7535	7535	7535
5°	7543	6241	7532
10°	7441	5329	7423
15°	7300	4584	7271
20°	7135	3945	7098
25°	6936	3404	6900
30°	6734	2959	6677
35°	6489	2560	6429
40°	6251	2202	6194
45°	6000	1884	5894
50°	5720	1598	5598
55°	5407	1338	5317
60°	5087	1097	4956
65°	4699	862	4540
70°	4217	648	4014
75°	3523	436	3286
80°	2623	254	2384
85°	1629	100	1372



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.9	1.1
10°-20°	127.1	3.0
20°-30°	187.5	4.4
30°-40°	218.7	5.2
40°-50°	219.1	5.2
50°-60°	191.7	4.5
60°-70°	141.0	3.3
70°-80°	76.5	1.8
80°-90°	19.6	0.5
90°-100°	73.8	1.7
100°-110°	217.1	5.1
110°-120°	365.1	8.6
120°-130°	476.2	11.2
130°-140°	530.9	12.5
140°-150°	519.2	12.3
150°-160°	436.7	10.3
160°-170°	290.3	6.9
170°-180°	101.1	2.4
0°-30°	359.6	8.5
0°-40°	578.3	13.6
0°-60°	989.1	23.3
0°-90°	1226.2	28.9
90°-120°	656.0	15.5
90°-150°	2182.3	51.5
90°-180°	3010.0	71.0
0°-180°	4236.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	476	476	476	476	476	
5°	479	473	470	473	478	45
15°	457	453	449	452	455	129
25°	414	410	400	409	412	191
35°	358	353	342	350	354	224
45°	293	288	274	285	288	226
55°	222	218	204	214	218	199
65°	150	144	134	140	145	149
75°	77	74	67	69	72	82
85°	18	17	15	15	16	21
90°	1	2	3	2	0	7
95°	62	71	70	67	58	64
105°	204	212	209	202	191	215
115°	369	375	369	364	356	365
125°	531	540	533	529	519	475
135°	685	699	688	690	672	529
145°	828	842	831	832	814	518
155°	949	959	949	949	936	437
165°	1035	1037	1026	1031	1026	292
175°	1076	1066	1048	1065	1073	102
180°	1067	1067	1067	1067	1067	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	476.4	476.4	476.4	476.4	476.4	476.4	476.4	476.4	476.4
2.5°	481.2	474.5	475.6	474.2	470.5	473.8	475.3	474.2	480.4
5°	478.9	472.3	473.4	471.6	470.5	471.6	473.1	471.6	478.2
7.5°	476.0	468.6	470.8	469.7	468.6	469.4	470.5	467.9	474.9
10°	470.8	463.5	466.8	464.6	463.5	464.2	466.1	462.4	469.7
12.5°	464.9	457.6	460.9	458.3	457.2	457.2	460.5	456.5	463.1
15°	456.8	450.9	453.2	450.6	448.7	449.8	452.4	449.5	455.0
17.5°	447.6	442.5	445.1	441.0	437.7	440.3	443.9	440.6	446.2
20°	438.1	432.2	434.7	429.2	426.3	428.5	433.3	430.7	435.8
22.5°	427.4	421.8	424.1	416.7	413.7	415.6	422.6	420.0	424.8
25°	414.5	410.1	410.4	403.1	399.7	401.9	409.3	407.8	412.3
27.5°	401.9	397.5	397.9	389.4	385.7	388.7	396.1	394.9	399.0
30°	388.3	384.3	383.9	375.4	372.5	374.3	381.7	381.7	385.0
32.5°	373.2	369.9	368.1	360.3	357.4	359.6	365.8	366.9	369.5
35°	357.7	355.5	352.9	345.6	341.5	344.5	350.4	351.8	354.4
37.5°	342.3	339.7	336.7	329.4	324.9	328.6	333.8	336.4	338.2
40°	326.1	324.2	320.9	313.5	308.0	311.7	317.6	320.5	323.1
42.5°	309.5	308.4	304.3	296.6	291.1	295.1	301.4	303.9	305.1
45°	292.9	291.4	287.7	279.6	273.7	278.2	284.8	287.4	287.7
47.5°	274.5	274.8	270.4	262.3	256.4	260.8	266.7	270.4	271.9
50°	257.9	258.3	253.1	245.0	239.1	242.4	249.4	253.1	252.4
52.5°	240.2	241.3	235.8	227.7	221.8	225.1	232.1	236.2	236.5
55°	221.8	223.6	217.7	209.6	204.5	207.8	213.7	218.5	218.1
57.5°	204.1	205.6	199.7	192.3	187.2	190.1	195.3	201.5	200.1
60°	186.4	187.9	181.6	174.3	169.8	171.3	177.2	182.4	181.6
62.5°	168.4	169.8	163.2	156.6	151.4	153.6	158.8	165.1	163.2
65°	150.3	151.4	144.4	138.5	134.1	136.3	140.0	146.6	145.2
67.5°	132.3	133.0	126.7	121.2	117.5	118.6	121.9	127.5	126.7
70°	114.2	114.9	109.1	103.9	100.6	101.7	104.3	109.4	108.7
72.5°	95.8	96.9	91.0	86.2	82.9	84.0	85.8	90.6	89.5
75°	77.4	78.1	73.7	70.0	67.1	67.4	68.9	72.6	72.2
77.5°	60.4	62.3	57.5	54.2	51.9	52.3	54.2	56.0	55.3
80°	43.8	46.1	42.7	40.2	38.3	37.9	39.4	40.9	39.8
82.5°	30.9	31.3	29.1	27.3	25.4	25.4	26.5	27.6	26.5
85°	18.4	19.2	17.3	15.8	14.7	14.4	15.1	16.2	15.5
87.5°	8.8	9.2	7.4	6.6	5.5	5.2	5.5	6.3	6.3
90°	0.7	1.8	1.8	2.2	2.6	2.6	2.2	2.2	0.4
92.5°	38.7	43.0	45.2	43.7	43.0	40.9	40.9	38.7	34.4
95°	61.7	68.1	71.0	70.3	70.3	67.4	66.7	64.5	58.1
97.5°	91.1	98.2	100.4	101.1	100.4	96.8	94.6	92.5	85.3
100°	124.8	131.9	134.1	134.1	133.4	129.8	126.9	124.0	116.2
102.5°	162.0	169.2	171.4	169.9	169.9	164.9	162.0	159.9	151.3
105°	203.6	210.8	212.2	210.1	209.4	204.3	202.2	199.3	191.4
107.5°	243.8	250.9	250.2	249.5	246.6	243.1	241.6	237.3	227.3
110°	285.4	294.7	291.1	289.7	286.8	283.2	281.8	280.3	272.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	326.9	337.0	332.7	331.2	327.7	323.4	323.4	322.6	314.8
115°	369.2	379.3	375.0	372.1	369.2	364.9	364.2	364.9	356.3
117.5°	410.1	421.6	416.6	413.0	410.1	405.1	405.8	407.2	397.9
120°	451.0	463.9	458.2	453.9	451.7	446.0	446.7	449.5	438.8
122.5°	491.1	504.0	499.0	494.7	492.6	486.1	487.5	489.0	478.9
125°	531.3	544.2	539.9	534.9	532.7	528.4	529.1	529.1	519.1
127.5°	570.7	583.6	580.8	575.0	572.2	566.4	569.3	567.1	558.5
130°	609.4	621.6	620.2	613.7	611.6	608.0	610.2	603.7	597.2
132.5°	647.4	659.6	660.3	653.2	650.3	646.7	651.0	643.9	635.2
135°	685.4	696.2	699.1	691.2	687.6	684.7	690.5	679.0	671.8
137.5°	722.0	730.6	737.1	727.7	724.9	719.9	727.0	715.6	709.1
140°	759.3	766.5	772.2	765.0	761.4	757.1	762.9	751.4	744.9
142.5°	793.7	801.6	807.3	800.2	795.9	792.3	798.0	785.8	780.1
145°	828.1	834.6	841.7	835.3	831.0	827.4	832.4	820.2	814.5
147.5°	860.4	866.1	874.7	867.6	863.3	860.4	864.0	851.8	846.8
150°	891.9	894.8	903.4	899.1	893.4	890.5	893.4	882.6	878.3
152.5°	921.3	923.5	931.4	926.3	923.5	918.5	922.0	911.3	908.4
155°	948.6	949.3	958.6	952.9	949.3	945.7	948.6	940.0	936.4
157.5°	974.4	974.4	980.8	978.0	972.2	970.8	972.9	963.6	962.9
160°	996.6	995.2	1003.1	998.0	993.0	991.6	995.2	986.6	985.9
162.5°	1017.4	1014.5	1021.7	1015.3	1010.9	1009.5	1014.5	1006.6	1007.4
165°	1034.6	1031.0	1036.8	1030.3	1026.0	1025.3	1031.0	1023.1	1026.0
167.5°	1049.7	1043.9	1048.9	1042.5	1038.9	1038.2	1044.6	1037.5	1041.8
170°	1061.1	1054.0	1058.3	1049.7	1048.2	1046.8	1054.7	1048.2	1055.4
172.5°	1070.5	1062.6	1064.0	1054.7	1049.7	1052.5	1061.1	1057.6	1065.4
175°	1076.2	1067.6	1066.2	1056.1	1047.5	1054.0	1064.7	1064.0	1073.3
177.5°	1078.3	1070.5	1068.3	1056.8	1054.0	1055.4	1067.6	1068.3	1076.9
180°	1066.9	1066.9	1066.9	1066.9	1066.9	1066.9	1066.9	1066.9	1066.9

(END OF REPORT)