

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: P199427

Luminaire Tested: **S122-DIP-ULO-2-30-X-X0048-1D-UDD-1-NA-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199427
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-2-30-X-X0048-1D-UDD-1-NA-W
Description: DEFINE 2-INCH DIRECT/INDIRECT PENDANT LED LUMINAIRE
UPLIGHT LLO-3000K, NO LENS
DOWNLIGHT LL2-3000K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4976.3 lumens
Efficiency: N/A
Efficacy: 90.3 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

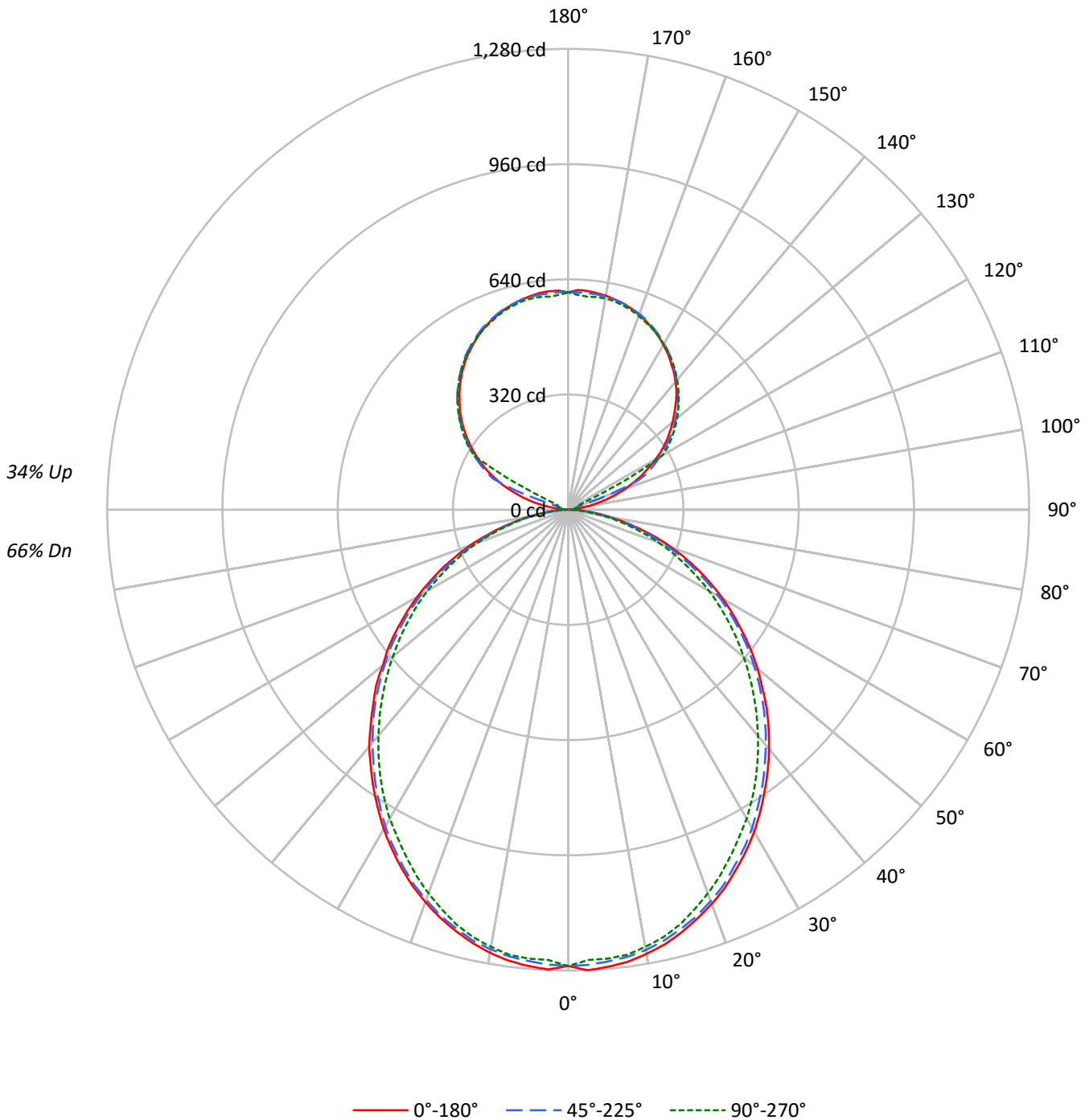
Input Watts (W): 55.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	20045	20045	20045
5°	20070	16604	20039
10°	19798	14179	19752
15°	19425	12196	19346
20°	18982	10494	18886
25°	18455	9057	18356
30°	17919	7872	17765
35°	17267	6812	17107
40°	16629	5859	16480
45°	15965	5012	15684
50°	15219	4252	14893
55°	14385	3560	14146
60°	13536	2919	13190
65°	12503	2292	12075
70°	11222	1723	10679
75°	9366	1160	8743
80°	6983	674	6342
85°	4338	266	3648



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.5	2.4
10°-20°	338.3	6.8
20°-30°	498.9	10.0
30°-40°	581.8	11.7
40°-50°	583.1	11.7
50°-60°	510.0	10.2
60°-70°	375.3	7.5
70°-80°	203.4	4.1
80°-90°	52.1	1.0
90°-100°	15.4	0.3
100°-110°	67.8	1.4
110°-120°	197.1	4.0
120°-130°	308.0	6.2
130°-140°	332.0	6.7
140°-150°	313.8	6.3
150°-160°	255.9	5.1
160°-170°	166.5	3.3
170°-180°	57.4	1.2
0°-30°	956.7	19.2
0°-40°	1538.5	30.9
0°-60°	2631.6	52.9
0°-90°	3262.4	65.6
90°-120°	280.3	5.6
90°-150°	1234.2	24.8
90°-180°	1714.0	34.4
0°-180°	4976.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1267	1267	1267	1267	1267	
5°	1274	1260	1252	1259	1272	121
15°	1216	1206	1194	1204	1211	343
25°	1103	1092	1064	1089	1097	508
35°	952	939	909	932	943	596
45°	779	766	728	758	766	600
55°	590	579	544	568	580	528
65°	400	384	357	372	386	396
75°	206	196	178	183	192	219
85°	49	46	39	40	41	55
90°	2	5	7	6	1	4
95°	15	12	14	14	26	21
105°	109	23	28	24	128	116
115°	225	244	50	252	241	222
125°	333	343	352	349	341	297
135°	423	432	434	436	427	326
145°	498	502	503	506	500	312
155°	554	558	554	559	555	256
165°	593	593	587	592	591	167
175°	610	604	594	604	609	58
180°	604	604	604	604	604	



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CATALOG NUMBER: S122-DIP-ULO-2-30-X-X0048-1D-UDD-1-NA-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1267.4	1267.4	1267.4	1267.4	1267.4	1267.4	1267.4	1267.4	1267.4
2.5°	1280.2	1262.5	1265.5	1261.6	1251.7	1260.6	1264.5	1261.6	1278.2
5°	1274.3	1256.7	1259.6	1254.7	1251.7	1254.7	1258.6	1254.7	1272.3
7.5°	1266.5	1246.8	1252.7	1249.8	1246.8	1248.8	1251.7	1244.9	1263.5
10°	1252.7	1233.1	1241.9	1236.1	1233.1	1235.1	1240.0	1230.2	1249.8
12.5°	1237.0	1217.4	1226.3	1219.4	1216.5	1216.5	1225.3	1214.5	1232.1
15°	1215.5	1199.8	1205.7	1198.8	1193.9	1196.9	1203.7	1195.9	1210.6
17.5°	1191.0	1177.3	1184.1	1173.3	1164.5	1171.4	1181.2	1172.4	1187.1
20°	1165.5	1149.8	1156.7	1142.0	1134.1	1140.0	1152.7	1145.9	1159.6
22.5°	1137.1	1122.4	1128.2	1108.6	1100.8	1105.7	1124.3	1117.5	1130.2
25°	1102.8	1091.0	1092.0	1072.4	1063.5	1069.4	1089.0	1085.1	1096.9
27.5°	1069.4	1057.7	1058.6	1036.1	1026.3	1034.1	1053.7	1050.8	1061.6
30°	1033.2	1022.4	1021.4	998.9	991.0	995.9	1015.5	1015.5	1024.3
32.5°	993.0	984.1	979.2	958.7	950.8	956.7	973.4	976.3	983.2
35°	951.8	945.9	939.1	919.5	908.7	916.5	932.2	936.1	943.0
37.5°	910.6	903.8	895.9	876.3	864.6	874.4	888.1	894.9	899.8
40°	867.5	862.6	853.8	834.2	819.5	829.3	845.0	852.8	859.7
42.5°	823.4	820.4	809.7	789.1	774.4	785.2	801.8	808.7	811.6
45°	779.3	775.4	765.6	744.0	728.3	740.1	757.7	764.6	765.6
47.5°	730.3	731.2	719.5	697.9	682.2	694.0	709.7	719.5	723.4
50°	686.2	687.1	673.4	651.9	636.2	645.0	663.6	673.4	671.5
52.5°	639.1	642.0	627.3	605.8	590.1	598.9	617.5	628.3	629.3
55°	590.1	595.0	579.3	557.7	544.0	552.8	568.5	581.3	580.3
57.5°	543.0	547.0	531.3	511.7	498.0	505.8	519.5	536.2	532.3
60°	496.0	499.9	483.3	463.6	451.9	455.8	471.5	485.2	483.3
62.5°	448.0	451.9	434.2	416.6	402.9	408.8	422.5	439.1	434.2
65°	399.9	402.9	384.2	368.6	356.8	362.7	372.5	390.1	386.2
67.5°	351.9	353.9	337.2	322.5	312.7	315.6	324.5	339.2	337.2
70°	303.9	305.8	290.1	276.4	267.6	270.5	277.4	291.1	289.2
72.5°	254.9	257.8	242.1	229.4	220.6	223.5	228.4	241.1	238.2
75°	205.8	207.8	196.0	186.2	178.4	179.4	183.3	193.1	192.1
77.5°	160.8	165.7	152.9	144.1	138.2	139.2	144.1	149.0	147.0
80°	116.6	122.5	113.7	106.8	101.9	101.0	104.9	108.8	105.9
82.5°	82.3	83.3	77.4	72.5	67.6	67.6	70.6	73.5	70.6
85°	49.0	51.0	46.1	42.1	39.2	38.2	40.2	43.1	41.2
87.5°	23.5	24.5	19.6	17.6	14.7	13.7	14.7	16.7	16.7
90°	2.0	4.9	4.9	5.9	6.9	6.9	5.9	5.9	1.0
92.5°	2.1	4.9	4.9	5.9	6.3	7.3	8.4	8.7	9.4
95°	14.7	10.5	11.9	12.9	13.6	14.7	14.0	12.9	25.5
97.5°	32.9	13.3	16.8	17.5	18.5	18.9	18.9	14.7	46.5
100°	54.9	15.4	19.9	22.7	23.4	23.4	21.3	32.9	71.7
102.5°	80.8	68.6	21.7	25.2	26.6	25.5	22.7	111.6	99.7
105°	108.8	123.5	23.1	26.6	28.0	27.3	23.8	137.5	128.0
107.5°	138.2	149.7	24.5	28.0	29.4	28.3	29.0	164.1	156.4
110°	167.6	177.4	109.9	29.0	30.4	29.0	152.2	191.0	184.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	195.6	205.7	206.4	30.8	31.1	33.2	226.3	218.3	213.1
115°	224.9	233.3	244.2	142.0	49.7	156.4	252.2	245.2	240.7
117.5°	251.9	259.9	268.3	249.8	190.3	271.8	277.1	271.8	267.3
120°	280.2	288.3	293.5	301.9	302.6	302.6	301.6	297.4	292.5
122.5°	308.2	313.5	317.7	326.1	328.9	325.7	325.0	321.2	317.3
125°	332.7	337.6	343.2	348.8	351.6	348.4	348.8	343.9	341.1
127.5°	355.8	360.0	367.3	370.8	373.6	370.1	371.5	366.3	364.2
130°	378.2	381.0	389.4	392.2	394.6	392.5	393.6	388.0	386.2
132.5°	400.2	404.1	411.1	412.1	414.9	411.8	415.6	407.9	407.2
135°	423.3	426.5	431.7	432.1	434.2	432.4	435.6	429.3	427.2
137.5°	445.0	446.4	450.9	449.5	452.7	449.9	454.4	448.1	446.7
140°	463.9	464.9	468.1	468.8	470.9	468.4	471.9	465.6	464.9
142.5°	481.4	482.8	485.6	485.2	487.7	485.2	489.4	483.8	483.1
145°	497.8	499.9	502.4	501.3	503.1	501.7	505.9	499.9	499.6
147.5°	514.3	515.0	518.5	516.7	517.8	516.0	520.6	515.7	515.0
150°	528.6	530.0	532.1	530.0	530.4	529.3	533.9	529.7	529.0
152.5°	543.0	542.6	545.8	541.6	543.3	541.6	546.8	542.6	542.6
155°	554.5	554.2	558.0	553.5	554.2	552.8	558.7	553.8	554.9
157.5°	566.0	564.3	568.8	564.3	562.9	563.9	568.5	563.9	566.0
160°	576.2	574.4	578.6	573.7	572.7	573.4	578.3	574.1	574.8
162.5°	584.9	582.5	586.3	581.1	581.1	580.0	586.3	582.1	584.2
165°	592.6	589.8	593.0	587.7	587.0	586.3	591.9	589.1	591.2
167.5°	598.2	595.4	598.2	592.3	593.0	591.6	597.2	595.4	597.9
170°	603.5	600.0	601.0	595.8	595.8	594.7	600.7	598.9	602.4
172.5°	607.0	603.1	603.1	597.2	595.8	596.5	602.8	602.4	607.3
175°	610.1	604.9	603.5	597.9	594.0	597.5	603.5	604.5	609.1
177.5°	610.8	605.9	604.5	598.2	597.2	597.5	604.9	605.2	609.1
180°	603.8	603.8	603.8	603.8	603.8	603.8	603.8	603.8	603.8

(END OF REPORT)