

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: P199396

Luminaire Tested: **S122-DIP-U1-LO-30-X-X0048-1D-UDD-1-5-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199396
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-30-X-X0048-1D-UDD-1-5-W
Description: DEFINE 2-INCH DIRECT/INDIRECT PENDANT LED LUMINAIRE
UPLIGHT LL1-3000K, SATIN WHITE DIFFUSER
DOWNLIGHT LLO-3000K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4022.9 lumens
Efficiency: N/A
Efficacy: 103.7 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

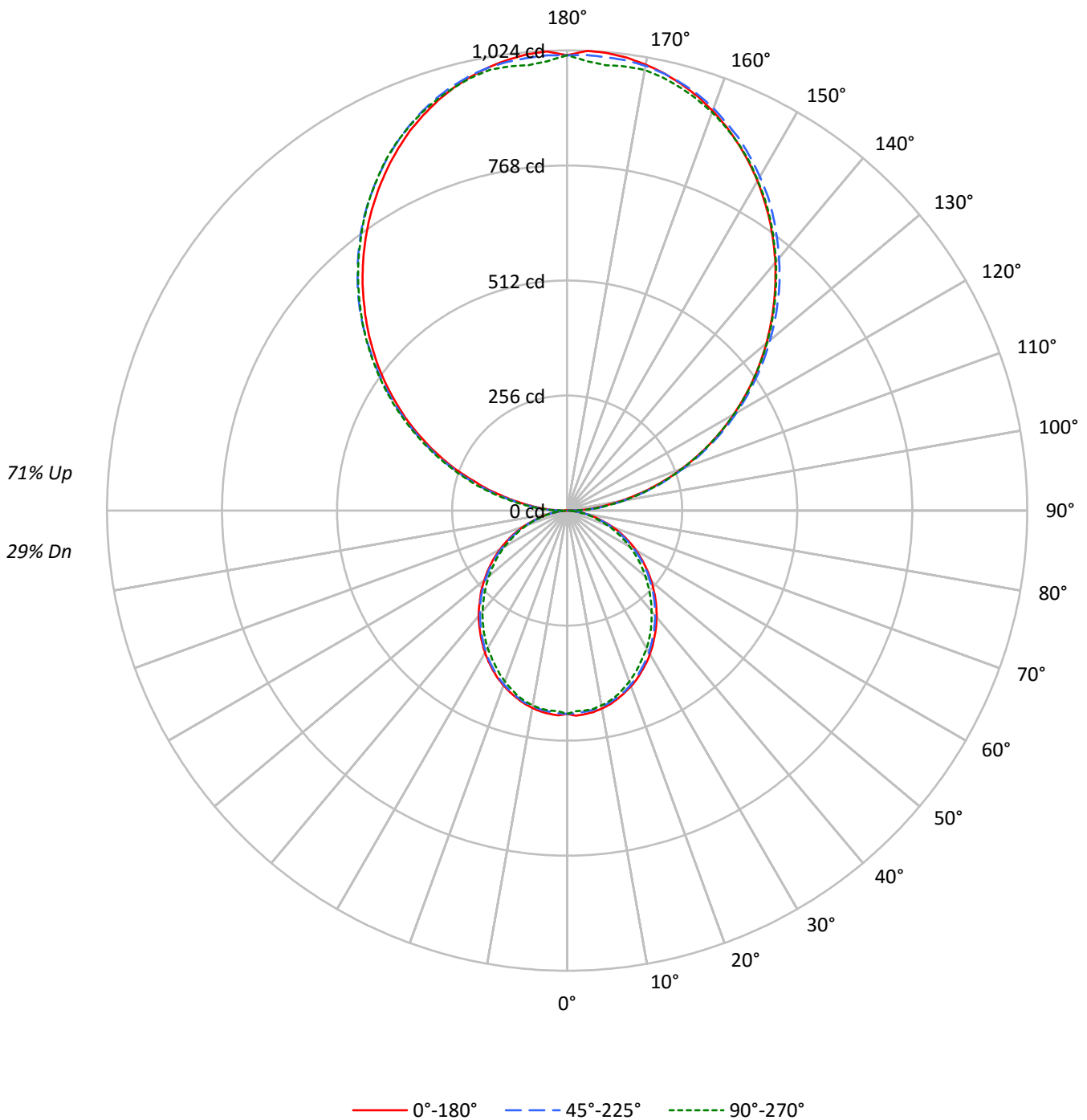
Input Watts (W): 38.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	7154	7154	7154
5°	7163	5926	7152
10°	7066	5060	7049
15°	6932	4353	6905
20°	6775	3746	6741
25°	6587	3233	6552
30°	6394	2810	6341
35°	6163	2431	6105
40°	5935	2091	5881
45°	5697	1789	5597
50°	5431	1517	5314
55°	5134	1271	5049
60°	4831	1042	4708
65°	4462	818	4308
70°	4006	615	3811
75°	3345	414	3122
80°	2491	241	2264
85°	1549	95	1301



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.6	1.1
10°-20°	120.7	3.0
20°-30°	178.1	4.4
30°-40°	207.7	5.2
40°-50°	208.1	5.2
50°-60°	182.0	4.5
60°-70°	133.9	3.3
70°-80°	72.6	1.8
80°-90°	18.6	0.5
90°-100°	70.0	1.7
100°-110°	206.2	5.1
110°-120°	346.7	8.6
120°-130°	452.2	11.2
130°-140°	504.1	12.5
140°-150°	493.0	12.3
150°-160°	414.7	10.3
160°-170°	275.7	6.9
170°-180°	96.0	2.4
0°-30°	341.5	8.5
0°-40°	549.1	13.6
0°-60°	939.2	23.3
0°-90°	1164.3	28.9
90°-120°	622.9	15.5
90°-150°	2072.2	51.5
90°-180°	2859.0	71.1
0°-180°	4022.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	452	452	452	452	452	
5°	455	450	447	449	454	43
15°	434	430	426	430	432	122
25°	394	390	380	389	392	181
35°	340	335	324	333	336	213
45°	278	273	260	270	273	214
55°	211	207	194	203	207	189
65°	143	137	127	133	138	141
75°	74	70	64	65	69	78
85°	18	16	14	14	15	20
90°	1	2	2	2	0	6
95°	59	67	67	63	55	61
105°	193	202	199	192	182	204
115°	351	356	351	346	338	346
125°	504	513	506	502	493	451
135°	651	664	653	656	638	502
145°	786	799	789	790	773	492
155°	901	910	901	901	889	415
165°	982	984	974	979	974	277
175°	1022	1012	995	1011	1019	97
180°	1013	1013	1013	1013	1013	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	452.3	452.3	452.3	452.3	452.3	452.3	452.3	452.3	452.3
2.5°	456.9	450.6	451.6	450.2	446.7	449.9	451.3	450.2	456.2
5°	454.8	448.5	449.5	447.8	446.7	447.8	449.2	447.8	454.1
7.5°	452.0	445.0	447.1	446.0	445.0	445.7	446.7	444.3	450.9
10°	447.1	440.1	443.3	441.2	440.1	440.8	442.6	439.1	446.0
12.5°	441.5	434.5	437.7	435.2	434.2	434.2	437.3	433.5	439.8
15°	433.8	428.2	430.3	427.9	426.1	427.2	429.6	426.8	432.1
17.5°	425.1	420.2	422.6	418.8	415.6	418.1	421.6	418.4	423.7
20°	416.0	410.4	412.8	407.6	404.8	406.9	411.4	409.0	413.9
22.5°	405.8	400.6	402.7	395.7	392.9	394.6	401.3	398.8	403.4
25°	393.6	389.4	389.7	382.7	379.6	381.7	388.7	387.3	391.5
27.5°	381.7	377.5	377.8	369.8	366.3	369.1	376.1	375.0	378.9
30°	368.7	364.9	364.5	356.5	353.7	355.4	362.4	362.4	365.6
32.5°	354.4	351.2	349.5	342.1	339.3	341.4	347.4	348.4	350.9
35°	339.7	337.6	335.1	328.2	324.3	327.1	332.7	334.1	336.5
37.5°	325.0	322.6	319.8	312.8	308.6	312.1	317.0	319.4	321.2
40°	309.6	307.9	304.7	297.7	292.5	296.0	301.6	304.4	306.8
42.5°	293.9	292.8	289.0	281.6	276.4	280.2	286.2	288.6	289.7
45°	278.1	276.7	273.2	265.5	259.9	264.1	270.4	272.9	273.2
47.5°	260.6	261.0	256.8	249.1	243.5	247.7	253.3	256.8	258.2
50°	244.9	245.2	240.3	232.6	227.0	230.2	236.8	240.3	239.6
52.5°	228.1	229.1	223.9	216.2	210.6	213.8	220.4	224.2	224.6
55°	210.6	212.4	206.8	199.1	194.2	197.3	202.9	207.5	207.1
57.5°	193.8	195.2	189.6	182.6	177.7	180.5	185.4	191.4	190.0
60°	177.0	178.4	172.5	165.5	161.3	162.7	168.3	173.2	172.5
62.5°	159.9	161.3	155.0	148.7	143.8	145.9	150.8	156.7	155.0
65°	142.7	143.8	137.1	131.5	127.3	129.4	132.9	139.2	137.8
67.5°	125.6	126.3	120.3	115.1	111.6	112.6	115.8	121.0	120.3
70°	108.5	109.2	103.6	98.7	95.5	96.6	99.0	103.9	103.2
72.5°	91.0	92.0	86.4	81.9	78.7	79.8	81.5	86.1	85.0
75°	73.5	74.2	70.0	66.5	63.7	64.0	65.4	68.9	68.6
77.5°	57.4	59.1	54.6	51.4	49.3	49.7	51.4	53.2	52.5
80°	41.6	43.7	40.6	38.1	36.4	36.0	37.4	38.8	37.8
82.5°	29.4	29.7	27.6	25.9	24.1	24.1	25.2	26.2	25.2
85°	17.5	18.2	16.4	15.0	14.0	13.6	14.3	15.4	14.7
87.5°	8.4	8.7	7.0	6.3	5.2	4.9	5.2	5.9	5.9
90°	0.7	1.7	1.7	2.1	2.4	2.4	2.1	2.1	0.3
92.5°	36.8	40.8	42.9	41.5	40.8	38.8	38.8	36.8	32.7
95°	58.6	64.7	67.4	66.7	66.7	64.0	63.3	61.3	55.1
97.5°	86.5	93.3	95.3	96.0	95.3	91.9	89.9	87.8	81.0
100°	118.5	125.3	127.3	127.3	126.6	123.2	120.5	117.8	110.3
102.5°	153.9	160.7	162.7	161.4	161.4	156.6	153.9	151.8	143.7
105°	193.4	200.2	201.5	199.5	198.8	194.0	192.0	189.3	181.8
107.5°	231.5	238.3	237.6	236.9	234.2	230.8	229.4	225.4	215.8
110°	271.0	279.8	276.4	275.1	272.3	268.9	267.6	266.2	258.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	310.5	320.0	315.9	314.5	311.1	307.1	307.1	306.4	298.9
115°	350.6	360.2	356.1	353.4	350.6	346.5	345.9	346.5	338.4
117.5°	389.4	400.3	395.6	392.2	389.4	384.7	385.4	386.7	377.9
120°	428.2	440.5	435.1	431.0	428.9	423.5	424.2	426.9	416.7
122.5°	466.4	478.6	473.9	469.8	467.7	461.6	463.0	464.3	454.8
125°	504.5	516.8	512.7	507.9	505.9	501.8	502.5	502.5	492.9
127.5°	541.9	554.2	551.5	546.0	543.3	537.9	540.6	538.5	530.4
130°	578.7	590.3	588.9	582.8	580.7	577.3	579.4	573.3	567.1
132.5°	614.8	626.4	627.0	620.2	617.5	614.1	618.2	611.4	603.2
135°	650.9	661.1	663.8	656.3	652.9	650.2	655.6	644.7	637.9
137.5°	685.6	693.8	699.9	691.0	688.3	683.6	690.4	679.5	673.3
140°	721.0	727.8	733.3	726.4	723.0	719.0	724.4	713.5	707.4
142.5°	753.7	761.2	766.6	759.8	755.7	752.3	757.8	746.2	740.7
145°	786.4	792.5	799.3	793.2	789.1	785.7	790.4	778.9	773.4
147.5°	817.0	822.4	830.6	823.8	819.7	817.0	820.4	808.8	804.1
150°	847.0	849.7	857.8	853.8	848.3	845.6	848.3	838.1	834.0
152.5°	874.9	876.9	884.4	879.6	876.9	872.1	875.5	865.3	862.6
155°	900.7	901.4	910.3	904.8	901.4	898.0	900.7	892.6	889.2
157.5°	925.2	925.2	931.4	928.7	923.2	921.8	923.9	915.0	914.4
160°	946.4	945.0	952.5	947.7	943.0	941.6	945.0	936.8	936.1
162.5°	966.1	963.4	970.2	964.1	960.0	958.6	963.4	955.9	956.6
165°	982.4	979.0	984.5	978.4	974.3	973.6	979.0	971.5	974.3
167.5°	996.7	991.3	996.1	989.9	986.5	985.8	992.0	985.2	989.2
170°	1007.6	1000.8	1004.9	996.7	995.4	994.0	1001.5	995.4	1002.2
172.5°	1016.5	1009.0	1010.4	1001.5	996.7	999.5	1007.6	1004.2	1011.7
175°	1021.9	1013.8	1012.4	1002.9	994.7	1000.8	1011.0	1010.4	1019.2
177.5°	1024.0	1016.5	1014.4	1003.5	1000.8	1002.2	1013.8	1014.4	1022.6
180°	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1	1013.1

(END OF REPORT)