

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: P199420

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199420
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-ULO-1-30-X-X0048-1D-UDD-1-5-W
Description: DEFINE 2-INCH DIRECT/INDIRECT PENDANT LED LUMINAIRE
UPLIGHT LLO-3000K, SATIN WHITE DIFFUSER
DOWNLIGHT LL1-3000K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3735.2 lumens
Efficiency: N/A
Efficacy: 93.1 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

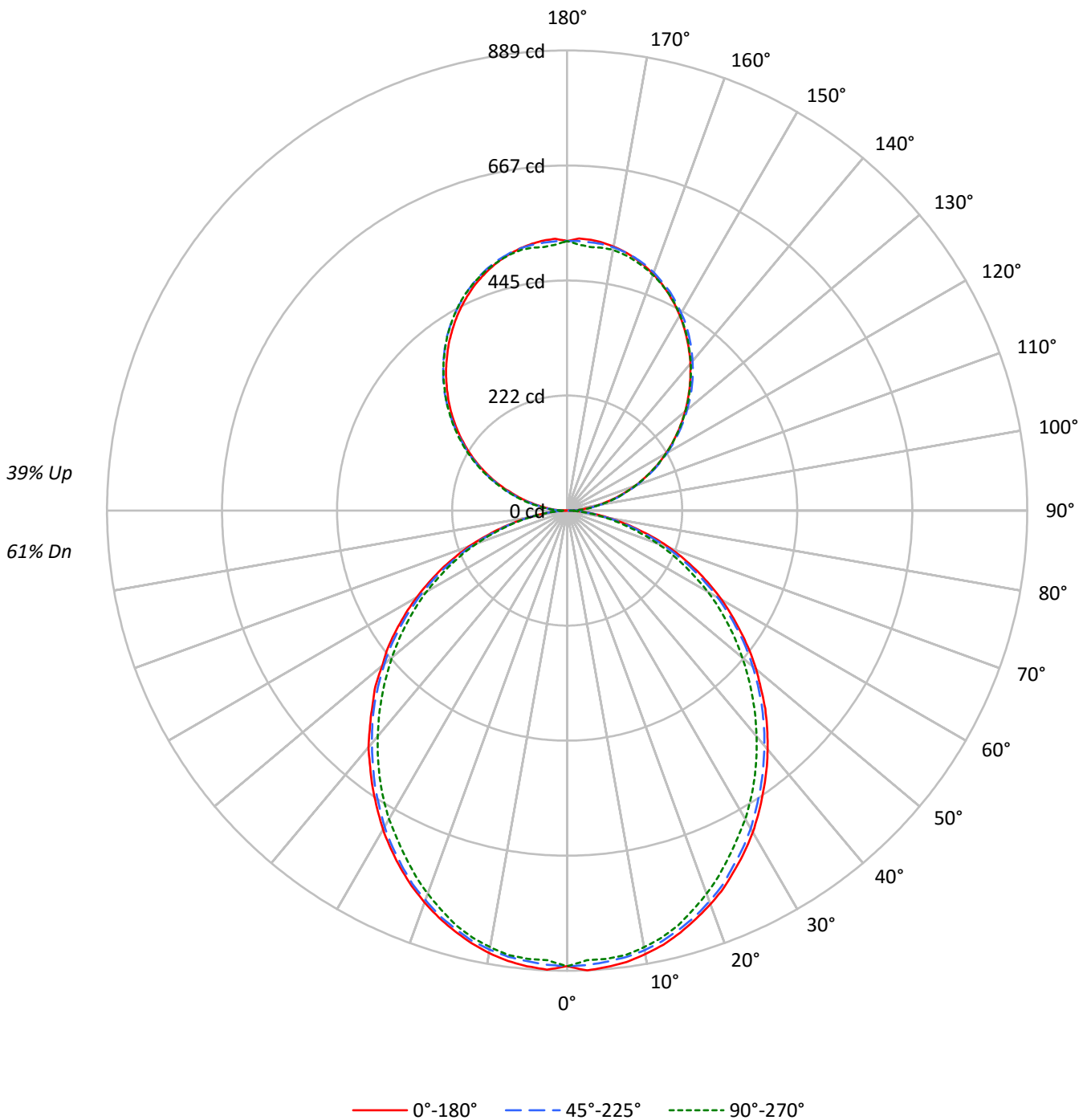
Input Watts (W): 40.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	110	110	110	103	103	103	103	89	89	89	77	77	77	66	66	66	61
1	100	96	92	88	94	90	86	83	78	76	74	68	66	64	58	57	56	51
2	91	84	78	72	85	79	73	68	69	65	61	60	57	54	51	49	47	43
3	83	74	66	60	78	69	63	57	61	56	51	53	49	46	46	43	40	36
4	76	65	57	51	71	61	54	49	54	48	44	47	43	39	41	37	35	31
5	70	58	50	44	65	55	47	42	48	42	38	42	38	34	37	33	30	27
6	65	52	44	38	60	49	42	36	44	38	33	38	33	30	33	30	27	24
7	60	47	39	33	56	45	37	32	40	34	29	35	30	26	30	27	24	21
8	56	43	35	30	52	41	33	28	36	30	26	32	27	24	28	24	21	19
9	52	39	32	27	48	37	30	25	33	27	23	29	25	21	26	22	19	17
10	48	36	29	24	45	34	27	23	31	25	21	27	23	19	24	20	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	13923	13923	13923
5°	13940	11533	13918
10°	13751	9848	13720
15°	13491	8472	13437
20°	13184	7289	13117
25°	12817	6291	12750
30°	12446	5468	12340
35°	11993	4731	11883
40°	11549	4069	11446
45°	11089	3482	10892
50°	10570	2954	10344
55°	9992	2473	9826
60°	9402	2028	9159
65°	8686	1592	8386
70°	7795	1197	7415
75°	6508	806	6071
80°	4851	469	4402
85°	3010	185	2532



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.0	2.2
10°-20°	235.0	6.3
20°-30°	346.5	9.3
30°-40°	404.1	10.8
40°-50°	405.0	10.8
50°-60°	354.3	9.5
60°-70°	260.6	7.0
70°-80°	141.3	3.8
80°-90°	36.2	1.0
90°-100°	36.4	1.0
100°-110°	105.9	2.8
110°-120°	178.2	4.8
120°-130°	232.4	6.2
130°-140°	259.0	6.9
140°-150°	253.3	6.8
150°-160°	213.1	5.7
160°-170°	141.6	3.8
170°-180°	49.3	1.3
0°-30°	664.5	17.8
0°-40°	1068.6	28.6
0°-60°	1827.8	48.9
0°-90°	2266.0	60.7
90°-120°	320.5	8.6
90°-150°	1065.2	28.5
90°-180°	1469.0	39.3
0°-180°	3735.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	880	880	880	880	880	
5°	885	875	869	874	884	84
15°	844	837	829	836	841	238
25°	766	758	739	756	762	353
35°	661	652	631	648	655	414
45°	541	532	506	526	532	417
55°	410	402	378	395	403	367
65°	278	267	248	259	268	275
75°	143	136	124	127	133	152
85°	34	32	27	28	29	38
90°	1	3	5	4	1	5
95°	30	35	34	32	28	31
105°	99	104	102	99	93	105
115°	180	183	180	178	174	178
125°	259	263	260	258	253	232
135°	334	341	336	337	328	258
145°	404	411	406	406	397	253
155°	463	468	463	463	457	213
165°	505	506	501	503	501	142
175°	525	520	511	520	524	50
180°	521	521	521	521	521	



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CATALOG NUMBER: S122-DIP-ULO-1-30-X-X0048-1D-UDD-1-5-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	880.3	880.3	880.3	880.3	880.3	880.3	880.3	880.3	880.3
2.5°	889.2	876.9	879.0	876.2	869.4	875.5	878.3	876.2	887.8
5°	885.1	872.8	874.9	871.5	869.4	871.5	874.2	871.5	883.7
7.5°	879.6	866.0	870.1	868.1	866.0	867.4	869.4	864.7	877.6
10°	870.1	856.5	862.6	858.5	856.5	857.8	861.3	854.4	868.1
12.5°	859.2	845.6	851.7	847.0	844.9	844.9	851.0	843.6	855.8
15°	844.2	833.3	837.4	832.7	829.3	831.3	836.1	830.6	840.8
17.5°	827.2	817.7	822.4	815.0	808.8	813.6	820.4	814.3	824.5
20°	809.5	798.6	803.4	793.2	787.7	791.8	800.7	795.9	805.4
22.5°	789.8	779.6	783.6	770.0	764.6	768.0	780.9	776.1	785.0
25°	765.9	757.8	758.4	744.8	738.7	742.8	756.4	753.7	761.9
27.5°	742.8	734.6	735.3	719.6	712.8	718.3	731.9	729.9	737.3
30°	717.6	710.1	709.4	693.8	688.3	691.7	705.3	705.3	711.5
32.5°	689.7	683.6	680.2	665.9	660.4	664.5	676.1	678.1	682.9
35°	661.1	657.0	652.2	638.6	631.1	636.6	647.5	650.2	655.0
37.5°	632.5	627.7	622.3	608.7	600.5	607.3	616.8	621.6	625.0
40°	602.5	599.1	593.0	579.4	569.2	576.0	586.9	592.3	597.1
42.5°	571.9	569.9	562.4	548.1	537.9	545.3	556.9	561.7	563.7
45°	541.3	538.5	531.7	516.8	505.9	514.0	526.3	531.0	531.7
47.5°	507.2	507.9	499.7	484.8	473.9	482.0	492.9	499.7	502.5
50°	476.6	477.3	467.7	452.8	441.9	448.0	460.9	467.7	466.4
52.5°	443.9	445.9	435.7	420.8	409.9	416.0	428.9	436.4	437.1
55°	409.9	413.3	402.4	387.4	377.9	384.0	394.9	403.7	403.1
57.5°	377.2	379.9	369.0	355.4	345.9	351.3	360.8	372.4	369.7
60°	344.5	347.2	335.6	322.0	313.9	316.6	327.5	337.0	335.6
62.5°	311.1	313.9	301.6	289.4	279.8	283.9	293.4	305.0	301.6
65°	277.8	279.8	266.9	256.0	247.8	251.9	258.7	271.0	268.2
67.5°	244.4	245.8	234.2	224.0	217.2	219.2	225.4	235.6	234.2
70°	211.1	212.4	201.5	192.0	185.9	187.9	192.7	202.2	200.8
72.5°	177.0	179.1	168.2	159.3	153.2	155.2	158.6	167.5	165.4
75°	143.0	144.3	136.2	129.4	123.9	124.6	127.3	134.1	133.4
77.5°	111.7	115.1	106.2	100.1	96.0	96.7	100.1	103.5	102.1
80°	81.0	85.1	79.0	74.2	70.8	70.1	72.8	75.6	73.5
82.5°	57.2	57.9	53.8	50.4	47.0	47.0	49.0	51.1	49.0
85°	34.0	35.4	32.0	29.3	27.2	26.6	27.9	30.0	28.6
87.5°	16.3	17.0	13.6	12.3	10.2	9.5	10.2	11.6	11.6
90°	1.4	3.4	3.4	4.1	4.8	4.8	4.1	4.1	0.7
92.5°	18.9	21.0	22.0	21.3	21.0	19.9	19.9	18.9	16.8
95°	30.1	33.2	34.6	34.3	34.3	32.9	32.5	31.5	28.3
97.5°	44.4	47.9	49.0	49.3	49.0	47.2	46.2	45.1	41.6
100°	60.9	64.4	65.4	65.4	65.1	63.3	61.9	60.5	56.7
102.5°	79.1	82.6	83.6	82.9	82.9	80.5	79.1	78.0	73.8
105°	99.4	102.9	103.6	102.5	102.2	99.7	98.7	97.3	93.4
107.5°	118.9	122.4	122.1	121.7	120.3	118.6	117.9	115.8	110.9
110°	139.2	143.8	142.0	141.3	139.9	138.2	137.5	136.8	132.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	159.5	164.4	162.3	161.6	159.9	157.8	157.8	157.4	153.6
115°	180.2	185.1	183.0	181.6	180.2	178.1	177.7	178.1	173.9
117.5°	200.1	205.7	203.3	201.5	200.1	197.7	198.0	198.7	194.2
120°	220.1	226.3	223.5	221.5	220.4	217.6	218.0	219.4	214.1
122.5°	239.6	245.9	243.5	241.4	240.3	237.2	237.9	238.6	233.7
125°	259.2	265.5	263.4	261.0	259.9	257.8	258.2	258.2	253.3
127.5°	278.5	284.8	283.4	280.6	279.2	276.4	277.8	276.7	272.5
130°	297.4	303.3	302.6	299.5	298.4	296.7	297.7	294.6	291.4
132.5°	315.9	321.9	322.2	318.7	317.3	315.6	317.7	314.2	310.0
135°	334.4	339.7	341.1	337.2	335.5	334.1	336.9	331.3	327.8
137.5°	352.3	356.5	359.6	355.1	353.7	351.2	354.7	349.1	346.0
140°	370.5	374.0	376.8	373.3	371.5	369.4	372.2	366.6	363.5
142.5°	387.3	391.1	393.9	390.4	388.3	386.6	389.4	383.4	380.6
145°	404.1	407.2	410.7	407.6	405.5	403.7	406.2	400.2	397.4
147.5°	419.8	422.6	426.8	423.3	421.2	419.8	421.6	415.6	413.2
150°	435.2	436.6	440.8	438.7	435.9	434.5	435.9	430.7	428.6
152.5°	449.5	450.6	454.4	452.0	450.6	448.1	449.9	444.6	443.3
155°	462.8	463.2	467.7	464.9	463.2	461.4	462.8	458.6	456.9
157.5°	475.4	475.4	478.6	477.2	474.4	473.7	474.7	470.2	469.8
160°	486.3	485.6	489.4	487.0	484.5	483.8	485.6	481.4	481.0
162.5°	496.4	495.0	498.5	495.4	493.3	492.6	495.0	491.2	491.5
165°	504.8	503.1	505.9	502.7	500.6	500.3	503.1	499.2	500.6
167.5°	512.2	509.4	511.8	508.7	506.9	506.6	509.7	506.2	508.3
170°	517.8	514.3	516.4	512.2	511.5	510.8	514.6	511.5	515.0
172.5°	522.3	518.5	519.2	514.6	512.2	513.6	517.8	516.0	519.9
175°	525.1	520.9	520.2	515.3	511.1	514.3	519.5	519.2	523.7
177.5°	526.2	522.3	521.3	515.7	514.3	515.0	520.9	521.3	525.5
180°	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6	520.6

(END OF REPORT)