

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: P199388

Luminaire Tested: **S122-DIW-U1-1-40-0048-1D-UDD-1-5-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P199388  
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-DIW-U1-1-40-0048-1D-UDD-1-5-W  
Description: DEFINE 2-INCH DIRECT/INDIRECT WALL LED LUMINAIRE  
UPLIGHT LL1-4000K, SATIN WHITE DIFFUSER  
DOWNLIGHT LL1-4000K, SATIN WHITE DIFFUSER  
Light Source: -  
757G  
Ballast/Driver: ELECTRONIC DRIVERS

**Summary**

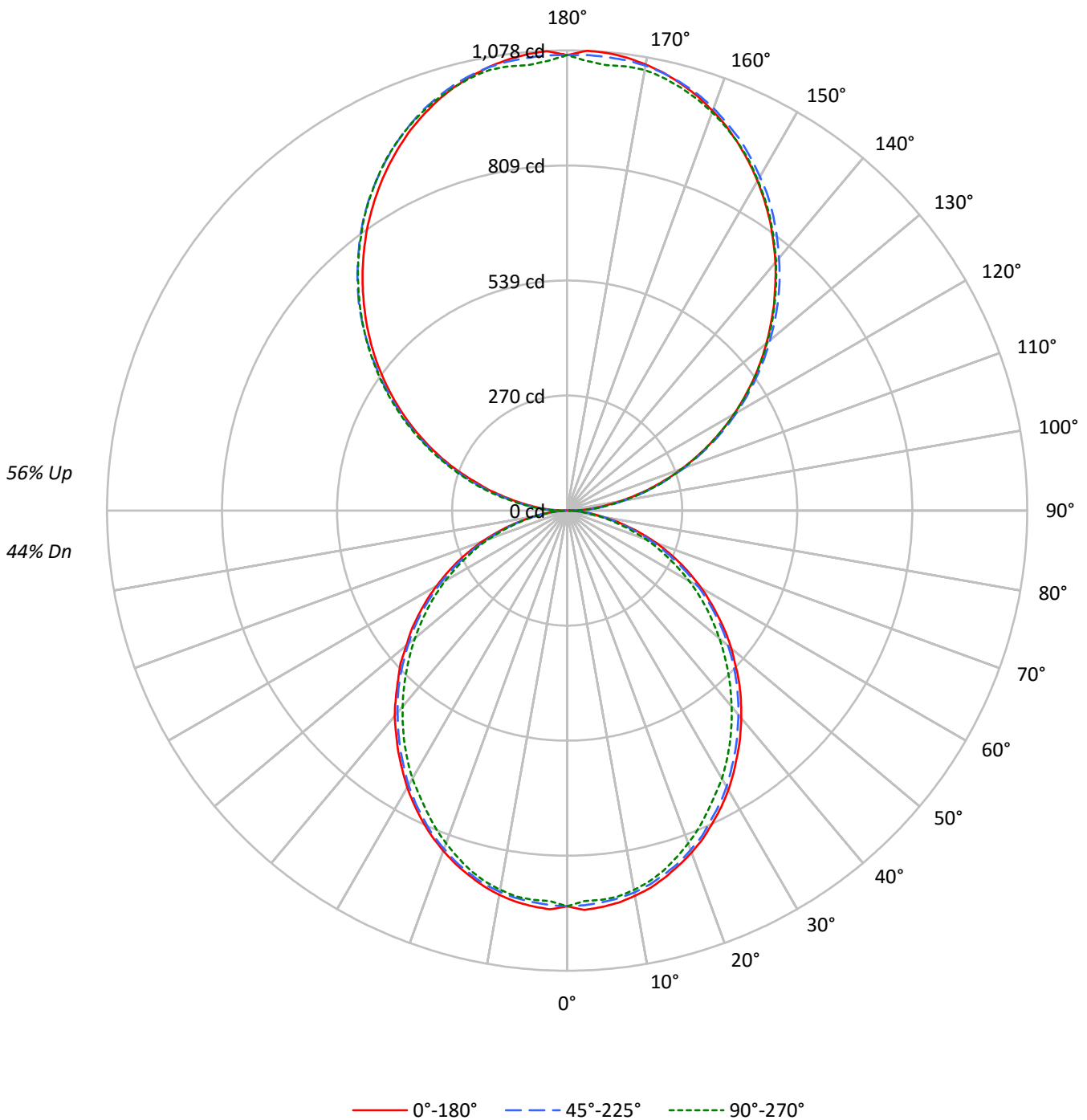
Lumens per Lamp: N/A  
Luminaire Lumens: 5396.9 lumens  
Efficiency: N/A  
Efficacy: 103.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.17 / 1.31  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4.08' x H: 0.38')  
CIE Type: General Diffuse

Input Watts (W): 52  
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	0	
RCR																						
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44				
1	97	92	88	85	88	85	81	78	70	68	66	57	56	54	45	44	43	37				
2	88	81	75	69	80	74	69	64	62	58	55	50	47	45	40	38	36	31				
3	80	71	64	58	73	65	59	54	54	50	46	44	41	38	35	33	31	27				
4	73	63	55	49	67	58	51	46	48	43	39	39	36	33	31	29	27	23				
5	67	56	48	42	61	51	44	39	43	38	34	35	31	28	28	25	23	20				
6	62	50	42	36	57	46	39	34	39	33	29	32	28	25	26	23	20	17				
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	23	20	18	15				
8	53	41	33	28	49	38	31	26	32	27	23	27	22	19	21	18	16	14				
9	49	37	30	25	45	35	28	23	29	24	20	24	20	17	20	17	15	12				
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	18	15	13	11				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	14663	14663	14663
5°	14681	12146	14657
10°	14481	10372	14448
15°	14208	8921	14151
20°	13884	7677	13814
25°	13498	6625	13426
30°	13106	5758	12994
35°	12630	4982	12512
40°	12163	4285	12054
45°	11677	3666	11472
50°	11131	3110	10892
55°	10521	2604	10348
60°	9901	2135	9647
65°	9145	1677	8833
70°	8209	1260	7810
75°	6854	849	6394
80°	5109	494	4635
85°	3170	195	2665



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.4	1.6
10°-20°	247.4	4.6
20°-30°	364.9	6.8
30°-40°	425.6	7.9
40°-50°	426.5	7.9
50°-60°	373.1	6.9
60°-70°	274.5	5.1
70°-80°	148.8	2.8
80°-90°	38.1	0.7
90°-100°	74.0	1.4
100°-110°	217.1	4.0
110°-120°	365.1	6.8
120°-130°	476.2	8.8
130°-140°	530.9	9.8
140°-150°	519.2	9.6
150°-160°	436.7	8.1
160°-170°	290.3	5.4
170°-180°	101.1	1.9
0°-30°	699.8	13.0
0°-40°	1125.4	20.9
0°-60°	1924.9	35.7
0°-90°	2386.3	44.2
90°-120°	656.2	12.2
90°-150°	2182.5	40.4
90°-180°	3011.0	55.8
0°-180°	5396.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	927	927	927	927	927	
5°	932	921	916	921	931	88
15°	889	882	873	880	886	251
25°	807	799	778	797	802	372
35°	696	687	665	682	690	436
45°	570	560	533	554	560	439
55°	432	424	398	416	424	387
65°	292	281	261	272	282	289
75°	151	143	130	134	140	160
85°	36	34	29	29	30	40
90°	1	4	5	4	1	8
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°	927.1	927.1	927.1	927.1	927.1	927.1	927.1	927.1	927.1
2.5°	936.4	923.5	925.6	922.8	915.6	922.0	924.9	922.8	934.9
5°	932.1	919.2	921.3	917.7	915.6	917.7	920.6	917.7	930.6
7.5°	926.3	912.0	916.3	914.2	912.0	913.4	915.6	910.6	924.2
10°	916.3	902.0	908.4	904.1	902.0	903.4	907.0	899.8	914.2
12.5°	904.8	890.5	896.9	891.9	889.8	889.8	896.2	888.3	901.3
15°	889.1	877.6	881.9	876.9	873.3	875.4	880.5	874.7	885.5
17.5°	871.1	861.1	866.1	858.2	851.8	856.8	864.0	857.5	868.3
20°	852.5	841.0	846.0	835.3	829.6	833.9	843.2	838.2	848.2
22.5°	831.7	820.9	825.3	810.9	805.2	808.8	822.4	817.4	826.7
25°	806.6	798.0	798.7	784.4	777.9	782.2	796.6	793.7	802.3
27.5°	782.2	773.6	774.3	757.9	750.7	756.4	770.8	768.6	776.5
30°	755.7	747.8	747.1	730.6	724.9	728.5	742.8	742.8	749.2
32.5°	726.3	719.9	716.3	701.2	695.5	699.8	712.0	714.1	719.1
35°	696.2	691.9	686.9	672.5	664.6	670.4	681.9	684.7	689.7
37.5°	666.1	661.1	655.3	641.0	632.4	639.6	649.6	654.6	658.2
40°	634.5	630.9	624.5	610.2	599.4	606.6	618.0	623.8	628.8
42.5°	602.3	600.1	592.2	577.2	566.4	574.3	586.5	591.5	593.7
45°	570.0	567.1	560.0	544.2	532.7	541.3	554.2	559.2	560.0
47.5°	534.2	534.9	526.3	510.5	499.0	507.6	519.1	526.3	529.1
50°	501.9	502.6	492.6	476.8	465.3	471.8	485.4	492.6	491.1
52.5°	467.5	469.6	458.9	443.1	431.6	438.1	451.7	459.6	460.3
55°	431.6	435.2	423.7	408.0	397.9	404.4	415.9	425.2	424.5
57.5°	397.2	400.1	388.6	374.3	364.2	370.0	380.0	392.2	389.3
60°	362.8	365.7	353.5	339.1	330.5	333.4	344.9	354.9	353.5
62.5°	327.7	330.5	317.6	304.7	294.7	299.0	309.0	321.2	317.6
65°	292.5	294.7	281.1	269.6	261.0	265.3	272.5	285.4	282.5
67.5°	257.4	258.8	246.6	235.9	228.7	230.9	237.3	248.1	246.6
70°	222.3	223.7	212.2	202.2	195.7	197.9	202.9	212.9	211.5
72.5°	186.4	188.6	177.1	167.8	161.3	163.5	167.1	176.4	174.2
75°	150.6	152.0	143.4	136.2	130.5	131.2	134.1	141.2	140.5
77.5°	117.6	121.2	111.8	105.4	101.1	101.8	105.4	109.0	107.5
80°	85.3	89.6	83.2	78.2	74.6	73.8	76.7	79.6	77.4
82.5°	60.2	60.9	56.6	53.1	49.5	49.5	51.6	53.8	51.6
85°	35.8	37.3	33.7	30.8	28.7	28.0	29.4	31.5	30.1
87.5°	17.2	17.9	14.3	12.9	10.8	10.0	10.8	12.2	12.2
90°	1.4	3.6	3.6	4.3	5.0	5.0	4.3	4.3	0.7
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)