

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: P199392

Luminaire Tested: **S122-DIW-U1-2-35-0048-1D-UDD-1-5-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P199392  
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-U1-2-35-0048-1D-UDD-1-5-W  
Description: DEFINE 2-INCH DIRECT/INDIRECT WALL LED LUMINAIRE  
UPLIGHT LL1-3500K, SATIN WHITE DIFFUSER  
DOWNLIGHT LL2-3500K, SATIN WHITE DIFFUSER  
Light Source: -  
757G  
Ballast/Driver: ELECTRONIC DRIVERS

**Summary**

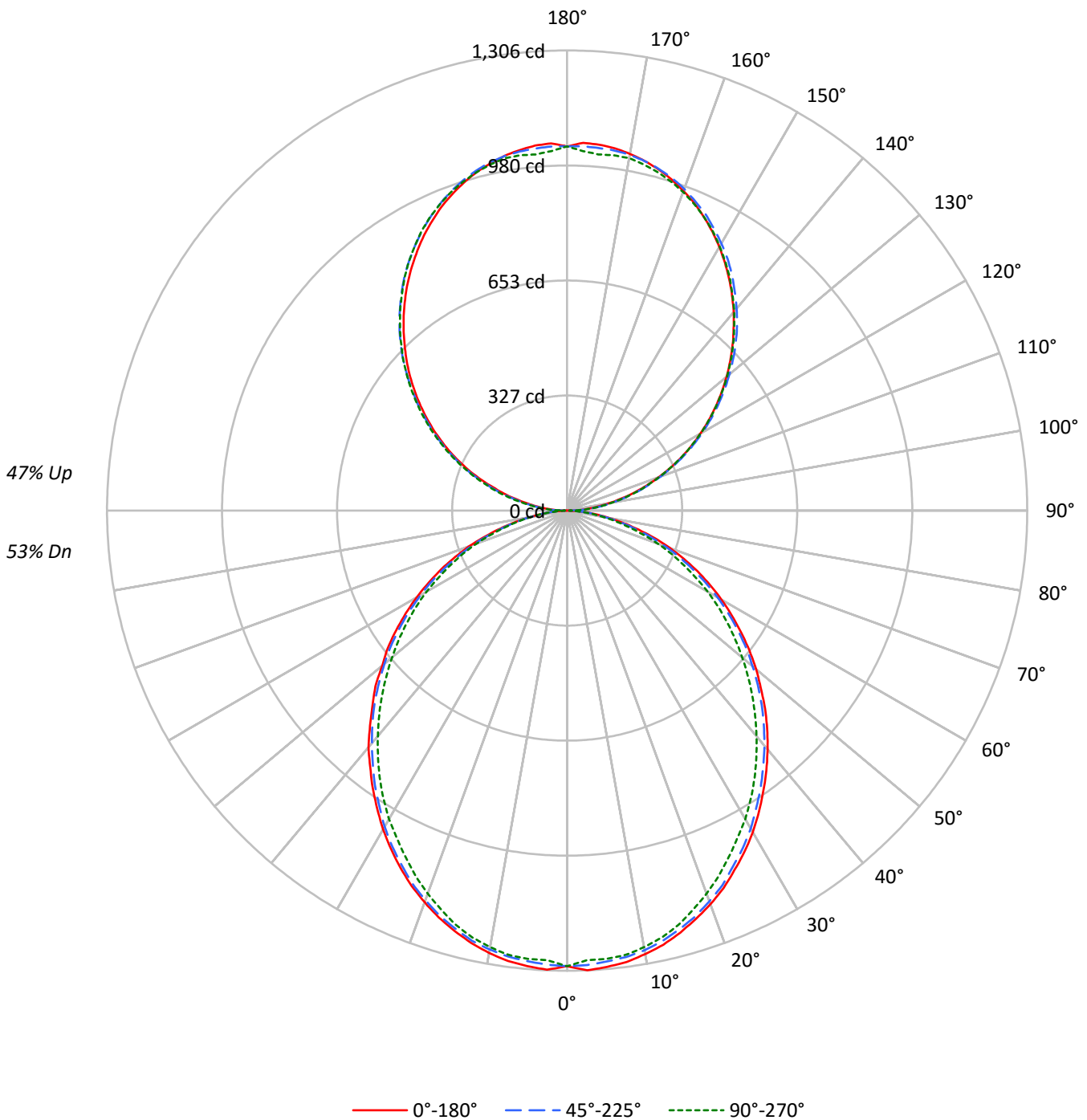
Lumens per Lamp: N/A  
Luminaire Lumens: 6244.9 lumens  
Efficiency: N/A  
Efficacy: 93.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.17 / 1.31  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4.08' x H: 0.38')  
CIE Type: General Diffuse

Input Watts (W): 67  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	53				
1	99	94	90	87	91	87	84	81	75	72	70	63	61	60	52	51	50	45				
2	90	82	76	71	83	76	71	67	66	62	58	55	53	50	46	44	42	38				
3	82	72	65	59	76	67	61	56	58	53	49	49	45	42	41	38	36	32				
4	75	64	56	50	69	60	53	47	51	46	42	44	40	36	37	33	31	27				
5	69	57	49	43	63	53	46	41	46	40	36	39	35	31	33	30	27	24				
6	63	51	43	37	59	48	41	35	41	36	31	35	31	28	30	26	24	21				
7	59	46	38	33	54	43	36	31	38	32	28	32	28	24	27	24	21	19				
8	54	42	34	29	50	39	32	27	34	29	25	30	25	22	25	22	19	17				
9	51	38	31	26	47	36	29	25	31	26	22	27	23	20	23	20	17	15				
10	47	35	28	23	44	33	26	22	29	24	20	25	21	18	21	18	16	14				

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

	0°	90°	180°
0°	20450	20450	20450
5°	20475	16940	20443
10°	20198	14465	20150
15°	19816	12442	19736
20°	19365	10706	19267
25°	18826	9240	18726
30°	18280	8031	18124
35°	17615	6950	17452
40°	16965	5977	16811
45°	16286	5114	16000
50°	15525	4338	15192
55°	14675	3632	14431
60°	13809	2978	13454
65°	12757	2339	12319
70°	11447	1758	10893
75°	9557	1184	8920
80°	7127	688	6468
85°	4427	272	3718



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	121.9	2.0
10°-20°	345.1	5.5
20°-30°	509.0	8.2
30°-40°	593.6	9.5
40°-50°	594.8	9.5
50°-60°	520.3	8.3
60°-70°	382.8	6.1
70°-80°	207.5	3.3
80°-90°	53.2	0.9
90°-100°	71.9	1.2
100°-110°	210.3	3.4
110°-120°	353.7	5.7
120°-130°	461.3	7.4
130°-140°	514.3	8.2
140°-150°	502.9	8.1
150°-160°	423.1	6.8
160°-170°	281.2	4.5
170°-180°	97.9	1.6
0°-30°	976.0	15.6
0°-40°	1569.6	25.1
0°-60°	2684.7	43.0
0°-90°	3328.2	53.3
90°-120°	636.0	10.2
90°-150°	2114.5	33.9
90°-180°	2917.0	46.7
0°-180°	6244.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1293	1293	1293	1293	1293	
5°	1300	1285	1277	1284	1298	123
15°	1240	1230	1218	1228	1235	350
25°	1125	1114	1085	1111	1119	519
35°	971	958	927	951	962	608
45°	795	781	743	773	781	612
55°	602	591	555	580	592	539
65°	408	392	364	380	394	404
75°	210	200	182	187	196	224
85°	50	47	40	41	42	56
90°	2	5	7	6	1	9
95°	60	69	68	65	56	62
105°	197	206	203	196	185	208
115°	358	363	358	353	345	353
125°	515	523	516	513	503	460
135°	664	677	666	669	651	512
145°	802	815	805	806	789	502
155°	919	929	920	919	907	423
165°	1002	1004	994	999	994	283
175°	1042	1033	1015	1031	1040	99
180°	1034	1034	1034	1034	1034	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0	1293.0
2.5°	1306.0	1288.0	1291.0	1287.0	1277.0	1286.0	1290.0	1287.0	1304.0
5°	1300.0	1282.0	1285.0	1280.0	1277.0	1280.0	1284.0	1280.0	1298.0
7.5°	1292.0	1272.0	1278.0	1275.0	1272.0	1274.0	1277.0	1270.0	1289.0
10°	1278.0	1258.0	1267.0	1261.0	1258.0	1260.0	1265.0	1255.0	1275.0
12.5°	1262.0	1242.0	1251.0	1244.0	1241.0	1241.0	1250.0	1239.0	1257.0
15°	1240.0	1224.0	1230.0	1223.0	1218.0	1221.0	1228.0	1220.0	1235.0
17.5°	1215.0	1201.0	1208.0	1197.0	1188.0	1195.0	1205.0	1196.0	1211.0
20°	1189.0	1173.0	1180.0	1165.0	1157.0	1163.0	1176.0	1169.0	1183.0
22.5°	1160.0	1145.0	1151.0	1131.0	1123.0	1128.0	1147.0	1140.0	1153.0
25°	1125.0	1113.0	1114.0	1094.0	1085.0	1091.0	1111.0	1107.0	1119.0
27.5°	1091.0	1079.0	1080.0	1057.0	1047.0	1055.0	1075.0	1072.0	1083.0
30°	1054.0	1043.0	1042.0	1019.0	1011.0	1016.0	1036.0	1036.0	1045.0
32.5°	1013.0	1004.0	999.0	978.0	970.0	976.0	993.0	996.0	1003.0
35°	971.0	965.0	958.0	938.0	927.0	935.0	951.0	955.0	962.0
37.5°	929.0	922.0	914.0	894.0	882.0	892.0	906.0	913.0	918.0
40°	885.0	880.0	871.0	851.0	836.0	846.0	862.0	870.0	877.0
42.5°	840.0	837.0	826.0	805.0	790.0	801.0	818.0	825.0	828.0
45°	795.0	791.0	781.0	759.0	743.0	755.0	773.0	780.0	781.0
47.5°	745.0	746.0	734.0	712.0	696.0	708.0	724.0	734.0	738.0
50°	700.0	701.0	687.0	665.0	649.0	658.0	677.0	687.0	685.0
52.5°	652.0	655.0	640.0	618.0	602.0	611.0	630.0	641.0	642.0
55°	602.0	607.0	591.0	569.0	555.0	564.0	580.0	593.0	592.0
57.5°	554.0	558.0	542.0	522.0	508.0	516.0	530.0	547.0	543.0
60°	506.0	510.0	493.0	473.0	461.0	465.0	481.0	495.0	493.0
62.5°	457.0	461.0	443.0	425.0	411.0	417.0	431.0	448.0	443.0
65°	408.0	411.0	392.0	376.0	364.0	370.0	380.0	398.0	394.0
67.5°	359.0	361.0	344.0	329.0	319.0	322.0	331.0	346.0	344.0
70°	310.0	312.0	296.0	282.0	273.0	276.0	283.0	297.0	295.0
72.5°	260.0	263.0	247.0	234.0	225.0	228.0	233.0	246.0	243.0
75°	210.0	212.0	200.0	190.0	182.0	183.0	187.0	197.0	196.0
77.5°	164.0	169.0	156.0	147.0	141.0	142.0	147.0	152.0	150.0
80°	119.0	125.0	116.0	109.0	104.0	103.0	107.0	111.0	108.0
82.5°	84.0	85.0	79.0	74.0	69.0	69.0	72.0	75.0	72.0
85°	50.0	52.0	47.0	43.0	40.0	39.0	41.0	44.0	42.0
87.5°	24.0	25.0	20.0	18.0	15.0	14.0	15.0	17.0	17.0
90°	2.0	5.0	5.0	6.0	7.0	7.0	6.0	6.0	1.0
92.5°	37.5	41.7	43.8	42.4	41.7	39.6	39.6	37.5	33.3
95°	59.7	66.0	68.8	68.1	68.1	65.3	64.6	62.5	56.3
97.5°	88.2	95.2	97.2	97.9	97.2	93.8	91.7	89.6	82.7
100°	120.9	127.8	129.9	129.9	129.2	125.7	122.9	120.2	112.5
102.5°	157.0	163.9	166.0	164.6	164.6	159.8	157.0	154.9	146.6
105°	197.3	204.2	205.6	203.5	202.8	198.0	195.9	193.1	185.4
107.5°	236.2	243.1	242.4	241.7	238.9	235.5	234.1	229.9	220.2
110°	276.4	285.5	282.0	280.6	277.8	274.4	273.0	271.6	263.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	316.7	326.4	322.3	320.9	317.4	313.2	313.2	312.6	304.9
115°	357.7	367.4	363.3	360.5	357.7	353.5	352.8	353.5	345.2
117.5°	397.3	408.4	403.5	400.1	397.3	392.4	393.1	394.5	385.5
120°	436.9	449.4	443.8	439.7	437.6	432.0	432.7	435.5	425.1
122.5°	475.8	488.3	483.4	479.3	477.2	470.9	472.3	473.7	464.0
125°	514.7	527.2	523.0	518.1	516.1	511.9	512.6	512.6	502.9
127.5°	552.9	565.4	562.6	557.0	554.3	548.7	551.5	549.4	541.1
130°	590.4	602.2	600.8	594.5	592.5	589.0	591.1	584.8	578.6
132.5°	627.2	639.0	639.7	632.7	630.0	626.5	630.7	623.7	615.4
135°	664.0	674.4	677.2	669.6	666.1	663.3	668.9	657.8	650.8
137.5°	699.4	707.8	714.0	705.0	702.2	697.3	704.3	693.2	686.9
140°	735.5	742.5	748.0	741.1	737.6	733.5	739.0	727.9	721.7
142.5°	768.9	776.5	782.1	775.1	771.0	767.5	773.1	761.2	755.7
145°	802.2	808.5	815.4	809.2	805.0	801.5	806.4	794.6	789.0
147.5°	833.5	839.0	847.4	840.4	836.3	833.5	837.0	825.1	820.3
150°	864.0	866.8	875.2	871.0	865.4	862.7	865.4	855.0	850.8
152.5°	892.5	894.6	902.2	897.4	894.6	889.7	893.2	882.8	880.0
155°	918.9	919.6	928.6	923.1	919.6	916.1	918.9	910.6	907.1
157.5°	943.9	943.9	950.2	947.4	941.8	940.4	942.5	933.5	932.8
160°	965.4	964.1	971.7	966.8	962.0	960.6	964.1	955.7	955.0
162.5°	985.6	982.8	989.8	983.5	979.3	977.9	982.8	975.2	975.9
165°	1002.3	998.8	1004.3	998.1	993.9	993.2	998.8	991.1	993.9
167.5°	1016.8	1011.3	1016.1	1009.9	1006.4	1005.7	1012.0	1005.0	1009.2
170°	1028.0	1021.0	1025.2	1016.8	1015.5	1014.1	1021.7	1015.5	1022.4
172.5°	1037.0	1029.3	1030.7	1021.7	1016.8	1019.6	1028.0	1024.5	1032.1
175°	1042.5	1034.2	1032.8	1023.1	1014.8	1021.0	1031.4	1030.7	1039.8
177.5°	1044.6	1037.0	1034.9	1023.8	1021.0	1022.4	1034.2	1034.9	1043.2
180°	1033.5	1033.5	1033.5	1033.5	1033.5	1033.5	1033.5	1033.5	1033.5

(END OF REPORT)