

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: P199386

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P199386  
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-U1-1-35-0048-1D-UDD-1-5-W  
Description: DEFINE 2-INCH DIRECT/INDIRECT WALL LED LUMINAIRE  
UPLIGHT LL1-3500K, SATIN WHITE DIFFUSER  
DOWNLIGHT LL1-3500K, SATIN WHITE DIFFUSER  
Light Source: -  
757G  
Ballast/Driver: ELECTRONIC DRIVERS

**Summary**

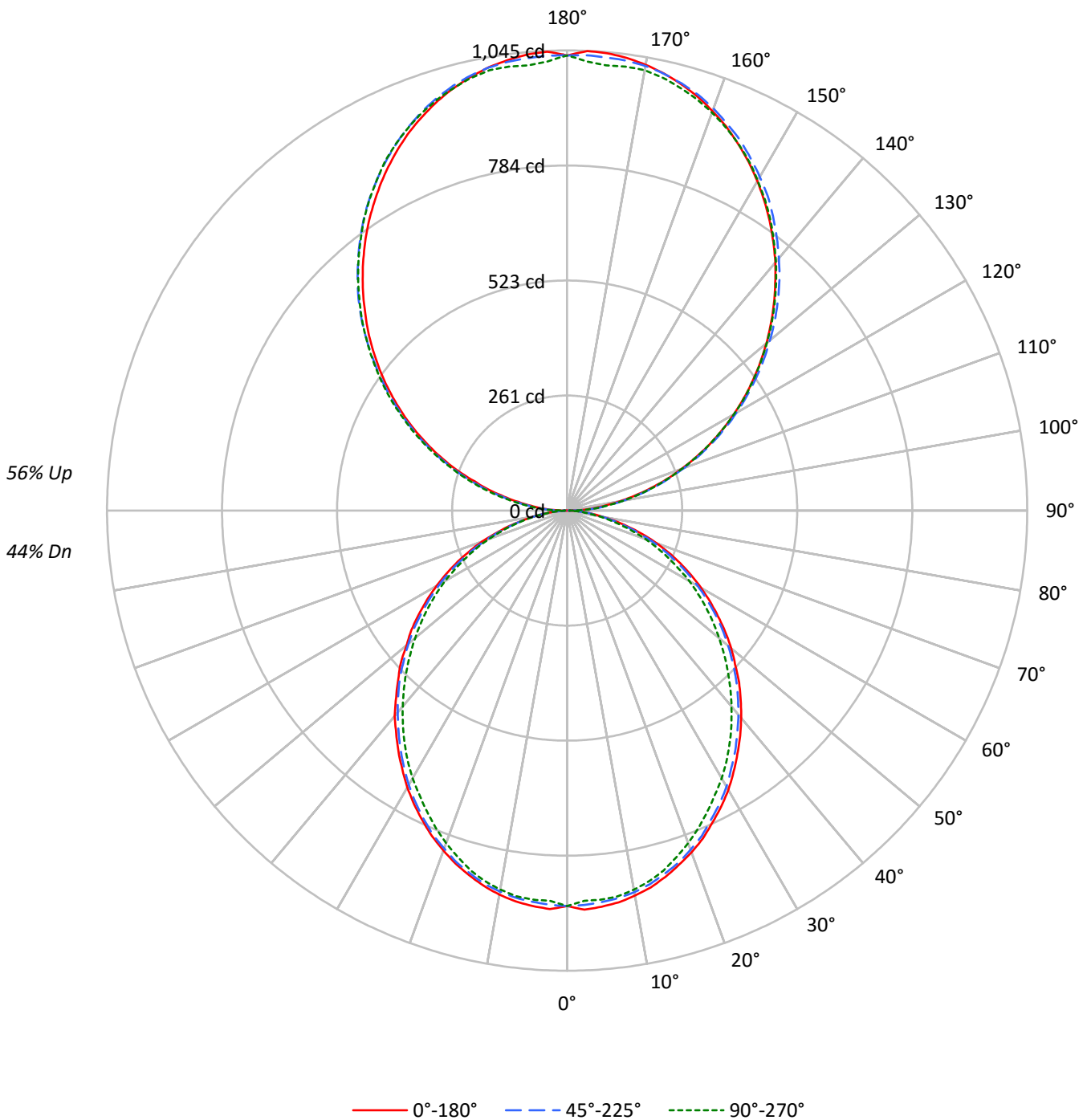
Lumens per Lamp: N/A  
Luminaire Lumens: 5228.2 lumens  
Efficiency: N/A  
Efficacy: 100.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.17 / 1.31  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4.08' x H: 0.38')  
CIE Type: General Diffuse

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

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

	0°	90°	180°
0°	14204	14204	14204
5°	14221	11766	14199
10°	14029	10047	13996
15°	13764	8642	13708
20°	13450	7436	13383
25°	13076	6418	13006
30°	12697	5578	12588
35°	12234	4827	12122
40°	11783	4152	11676
45°	11312	3552	11114
50°	10783	3013	10552
55°	10192	2523	10024
60°	9593	2068	9344
65°	8861	1624	8558
70°	7950	1221	7566
75°	6640	822	6194
80°	4953	478	4492
85°	3072	189	2585



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.7	1.6
10°-20°	239.7	4.6
20°-30°	353.5	6.8
30°-40°	412.3	7.9
40°-50°	413.1	7.9
50°-60°	361.4	6.9
60°-70°	265.9	5.1
70°-80°	144.1	2.8
80°-90°	36.9	0.7
90°-100°	71.7	1.4
100°-110°	210.3	4.0
110°-120°	353.7	6.8
120°-130°	461.3	8.8
130°-140°	514.3	9.8
140°-150°	502.9	9.6
150°-160°	423.1	8.1
160°-170°	281.2	5.4
170°-180°	97.9	1.9
0°-30°	677.9	13.0
0°-40°	1090.2	20.9
0°-60°	1864.7	35.7
0°-90°	2311.7	44.2
90°-120°	635.7	12.2
90°-150°	2114.3	40.4
90°-180°	2917.0	55.8
0°-180°	5228.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	898	898	898	898	898	
5°	903	892	887	892	902	86
15°	861	854	846	853	858	243
25°	781	774	754	772	777	360
35°	674	665	644	660	668	422
45°	552	542	516	537	542	425
55°	418	410	386	403	411	374
65°	283	272	253	264	274	280
75°	146	139	126	130	136	155
85°	35	33	28	28	29	39
90°	1	4	5	4	1	8
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°	898.1	898.1	898.1	898.1	898.1	898.1	898.1	898.1	898.1
2.5°	907.1	894.6	896.7	893.9	887.0	893.2	896.0	893.9	905.7
5°	902.9	890.4	892.5	889.0	887.0	889.0	891.8	889.0	901.5
7.5°	897.4	883.5	887.7	885.6	883.5	884.9	887.0	882.1	895.3
10°	887.7	873.8	880.0	875.8	873.8	875.2	878.6	871.7	885.6
12.5°	876.5	862.7	868.9	864.0	862.0	862.0	868.2	860.6	873.1
15°	861.3	850.1	854.3	849.5	846.0	848.1	852.9	847.4	857.8
17.5°	843.9	834.2	839.0	831.4	825.1	830.0	837.0	830.7	841.1
20°	825.8	814.7	819.6	809.2	803.6	807.8	816.8	811.9	821.7
22.5°	805.7	795.3	799.4	785.6	780.0	783.5	796.7	791.8	800.8
25°	781.4	773.1	773.7	759.9	753.6	757.8	771.7	768.9	777.2
27.5°	757.8	749.4	750.1	734.2	727.2	732.8	746.7	744.6	752.2
30°	732.1	724.4	723.7	707.8	702.2	705.7	719.6	719.6	725.8
32.5°	703.6	697.3	693.9	679.3	673.7	677.9	689.7	691.8	696.6
35°	674.4	670.3	665.4	651.5	643.9	649.4	660.5	663.3	668.2
37.5°	645.3	640.4	634.8	620.9	612.6	619.6	629.3	634.1	637.6
40°	614.7	611.2	605.0	591.1	580.7	587.6	598.7	604.3	609.1
42.5°	583.4	581.4	573.7	559.1	548.7	556.3	568.2	573.0	575.1
45°	552.2	549.4	542.5	527.2	516.1	524.4	536.9	541.8	542.5
47.5°	517.5	518.1	509.8	494.5	483.4	491.8	502.9	509.8	512.6
50°	486.2	486.9	477.2	461.9	450.8	457.0	470.2	477.2	475.8
52.5°	452.9	454.9	444.5	429.2	418.1	424.4	437.6	445.2	445.9
55°	418.1	421.6	410.5	395.2	385.5	391.7	402.8	411.9	411.2
57.5°	384.8	387.6	376.5	362.6	352.8	358.4	368.1	379.9	377.1
60°	351.5	354.2	342.4	328.5	320.2	323.0	334.1	343.8	342.4
62.5°	317.4	320.2	307.7	295.2	285.5	289.6	299.4	311.2	307.7
65°	283.4	285.5	272.3	261.2	252.8	257.0	263.9	276.4	273.7
67.5°	249.3	250.7	238.9	228.5	221.6	223.7	229.9	240.3	238.9
70°	215.3	216.7	205.6	195.9	189.6	191.7	196.6	206.3	204.9
72.5°	180.6	182.7	171.6	162.5	156.3	158.4	161.8	170.9	168.8
75°	145.9	147.2	138.9	132.0	126.4	127.1	129.9	136.8	136.1
77.5°	113.9	117.4	108.4	102.1	97.9	98.6	102.1	105.6	104.2
80°	82.7	86.8	80.6	75.7	72.2	71.5	74.3	77.1	75.0
82.5°	58.3	59.0	54.9	51.4	47.9	47.9	50.0	52.1	50.0
85°	34.7	36.1	32.6	29.9	27.8	27.1	28.5	30.6	29.2
87.5°	16.7	17.4	13.9	12.5	10.4	9.7	10.4	11.8	11.8
90°	1.4	3.5	3.5	4.2	4.9	4.9	4.2	4.2	0.7
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)