

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: P333783

Luminaire Tested: **S122DW-S865D835-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333783  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DW-S865D835-4F0-1E-UDD-D  
Description: DEFINE 2 DIRECT LED LUMINAIRE, DROP SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 865 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

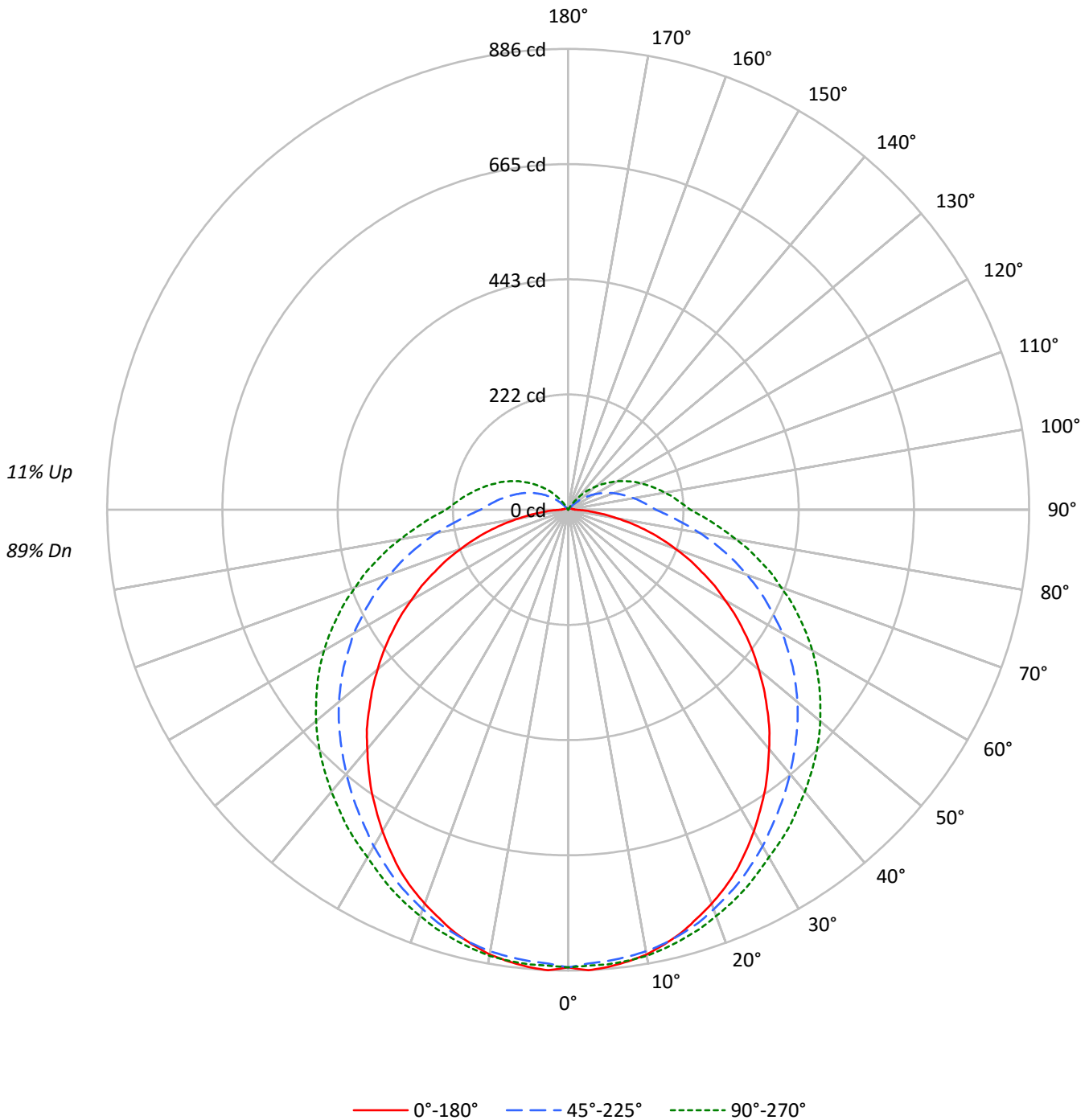
Lumens per Lamp: N/A  
Luminaire Lumens: 3357.5 lumens  
Efficiency: N/A  
Efficacy: 96.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 34.8  
Input Voltage (V): 120  
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	0
RCR																		
0	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92	89
1	104	98	93	88	100	95	90	86	88	85	81	82	79	77	77	75	72	69
2	94	84	77	70	90	81	74	68	76	70	65	71	66	62	66	62	59	56
3	85	73	64	57	81	71	63	56	66	59	54	62	56	51	58	53	49	46
4	77	64	55	48	74	62	54	47	58	51	45	55	48	43	51	46	42	39
5	71	57	48	41	68	56	47	40	52	44	39	49	42	37	46	40	36	33
6	65	51	42	35	63	50	41	35	47	39	34	44	37	32	42	36	31	29
7	60	46	37	31	58	45	37	31	43	35	30	40	34	29	38	32	28	25
8	56	42	34	28	54	41	33	27	39	32	26	37	30	25	35	29	25	23
9	52	39	30	25	50	38	30	24	36	29	24	34	27	23	32	26	22	20
10	49	36	28	22	47	35	27	22	33	26	21	31	25	21	30	24	20	18

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

	0°	45°	90°
0°	14207	14207	14207
5°	14303	14117	14220
10°	14237	14134	14280
15°	14069	14111	14282
20°	13849	14045	14287
25°	13630	13995	14336
30°	13313	13932	14384
35°	12995	13900	14629
40°	12659	13976	14918
45°	12346	14152	15347
50°	12012	14446	15887
55°	11668	14826	16586
60°	11241	15361	17502
65°	10816	16076	18709
70°	10353	17216	20530
75°	9788	19332	23787
80°	8889	23831	30470
85°	8503	38273	51500



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.4	2.5
10°-20°	239.2	7.1
20°-30°	362.5	10.8
30°-40°	441.4	13.1
40°-50°	474.9	14.1
50°-60°	461.2	13.7
60°-70°	402.8	12.0
70°-80°	310.0	9.2
80°-90°	207.6	6.2
90°-100°	143.2	4.3
100°-110°	104.6	3.1
110°-120°	69.1	2.1
120°-130°	38.5	1.1
130°-140°	16.2	0.5
140°-150°	2.7	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	685.2	20.4
0°-40°	1126.6	33.6
0°-60°	2062.7	61.4
0°-90°	2983.2	88.9
90°-120°	316.9	9.4
90°-150°	374.3	11.1
90°-180°	374.0	11.1
0°-180°	3357.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	880	880	880	880	880	
5°	882	879	871	879	877	84
15°	842	844	844	856	854	237
25°	765	774	786	801	805	352
35°	659	681	705	733	742	412
45°	541	575	620	659	672	417
55°	414	460	527	573	589	371
65°	283	346	421	473	490	281
75°	157	228	310	365	381	166
85°	46	125	207	260	278	48
90°	13	87	168	219	235	9
95°	10	70	147	195	210	8
105°	6	43	110	154	168	7
115°	5	19	76	115	129	5
125°	3	3	43	78	89	3
135°	1	1	14	41	51	1
145°	0	0	0	8	14	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P333783

CATALOG NUMBER: S122DW-S865D835-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	879.9	879.9	879.9	879.9	879.9
2.5°	886.3	882.5	873.5	879.9	877.4
5°	882.5	878.6	871.0	878.6	877.4
7.5°	876.1	873.5	867.2	876.1	874.8
10°	868.4	865.9	862.1	872.3	871.0
12.5°	855.7	857.0	854.4	864.6	863.3
15°	841.7	844.2	844.2	855.7	854.4
17.5°	823.8	828.9	832.7	844.2	844.2
20°	806.0	812.3	817.4	831.5	831.5
22.5°	786.8	794.5	802.1	816.2	818.7
25°	765.1	774.1	785.6	800.9	804.7
27.5°	739.6	753.7	766.4	785.6	788.1
30°	714.1	730.7	747.3	767.7	771.5
32.5°	686.1	705.2	725.6	749.8	757.5
35°	659.3	681.0	705.2	733.3	742.2
37.5°	630.0	654.2	684.8	715.4	724.3
40°	600.6	628.7	663.1	696.3	707.8
42.5°	572.6	600.6	641.4	678.4	689.9
45°	540.7	575.1	619.8	659.3	672.1
47.5°	510.1	547.1	598.1	638.9	652.9
50°	478.2	517.8	575.1	618.5	632.5
52.5°	447.6	489.7	550.9	595.5	610.8
55°	414.5	460.4	526.7	572.6	589.2
57.5°	382.6	433.6	499.9	549.6	566.2
60°	348.1	403.0	475.7	524.1	542.0
62.5°	317.5	374.9	447.6	499.9	516.5
65°	283.1	345.6	420.8	473.1	489.7
67.5°	252.5	317.5	394.1	446.3	464.2
70°	219.3	285.7	364.7	419.6	434.9
72.5°	188.7	257.6	337.9	391.5	410.6
75°	156.9	228.3	309.9	364.7	381.3
77.5°	126.2	200.2	283.1	337.9	355.8
80°	95.6	173.4	256.3	309.9	327.7
82.5°	70.1	146.7	230.8	284.4	301.0
85°	45.9	125.0	206.6	260.2	278.0
87.5°	28.1	104.6	186.2	238.5	255.0
90°	12.8	86.7	168.3	219.3	234.6
92.5°	11.5	79.1	156.9	206.6	221.9
95°	10.2	70.1	146.7	195.1	210.4
97.5°	8.9	63.8	137.7	184.9	200.2
100°	8.9	56.1	127.5	174.7	188.7
102.5°	7.7	49.7	118.6	164.5	178.5
105°	6.4	43.4	109.7	154.3	168.3
107.5°	6.4	37.0	100.7	144.1	158.1
110°	5.1	30.6	93.1	133.9	147.9



TEST NUMBER: P333783

CATALOG NUMBER: S122DW-S865D835-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	5.1	25.5	84.2	125.0	139.0
115°	5.1	19.1	76.5	114.8	128.8
117.5°	3.8	14.0	67.6	105.8	118.6
120°	3.8	8.9	59.9	95.6	109.7
122.5°	3.8	5.1	52.3	86.7	98.2
125°	2.6	2.6	43.4	77.8	89.3
127.5°	2.6	1.3	35.7	67.6	79.1
130°	2.6	1.3	28.1	58.7	68.9
132.5°	2.6	1.3	20.4	49.7	59.9
135°	1.3	1.3	14.0	40.8	51.0
137.5°	1.3	1.3	7.7	31.9	40.8
140°	1.3	0.0	2.6	23.0	30.6
142.5°	1.3	0.0	0.0	15.3	21.7
145°	0.0	0.0	0.0	7.7	14.0
147.5°	0.0	0.0	0.0	1.3	5.1
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)