

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: P333808

Luminaire Tested: **S122DP-S865D940-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333808  
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: S122DP-S865D940-4F0-1E-UDD-D  
Description: DEFINE 2 DIRECT LED LUMINAIRE, DROP SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 865 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2993.9 lumens  
Efficiency: N/A  
Efficacy: 86.0 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

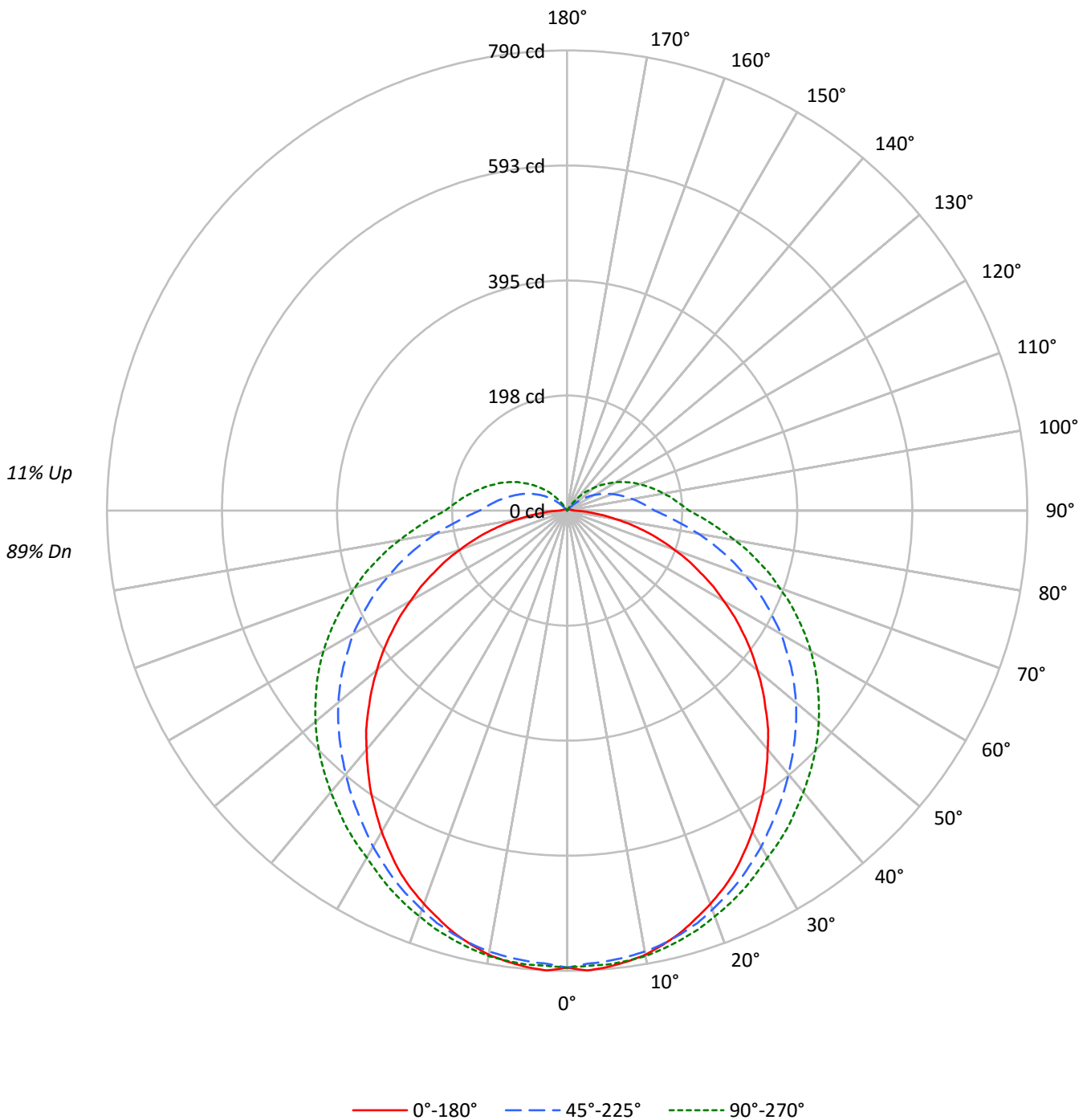
Input Watts (W): 34.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333808

CATALOG NUMBER: S122DP-S865D940-4F0-1E-UDD-D

### Luminous Intensity Polar Plot





TEST NUMBER: P333808

CATALOG NUMBER: S122DP-S865D940-4F0-1E-UDD-D

**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	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°	12668	12668	12668
5°	12754	12588	12681
10°	12696	12603	12734
15°	12545	12583	12735
20°	12349	12524	12739
25°	12155	12479	12782
30°	11872	12424	12827
35°	11588	12394	13044
40°	11289	12463	13302
45°	11010	12620	13684
50°	10711	12883	14167
55°	10404	13219	14790
60°	10023	13698	15607
65°	9643	14338	16684
70°	9234	15352	18307
75°	8727	17236	21210
80°	7931	21255	27169
85°	7577	34124	45924



TEST NUMBER: P333808

CATALOG NUMBER: S122DP-S865D940-4F0-1E-UDD-D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.4	2.5
10°-20°	213.3	7.1
20°-30°	323.2	10.8
30°-40°	393.6	13.1
40°-50°	423.5	14.1
50°-60°	411.3	13.7
60°-70°	359.2	12.0
70°-80°	276.4	9.2
80°-90°	185.1	6.2
90°-100°	127.7	4.3
100°-110°	93.3	3.1
110°-120°	61.6	2.1
120°-130°	34.3	1.1
130°-140°	14.4	0.5
140°-150°	2.4	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	611.0	20.4
0°-40°	1004.6	33.6
0°-60°	1839.4	61.4
0°-90°	2660.1	88.9
90°-120°	282.6	9.4
90°-150°	333.7	11.1
90°-180°	334.0	11.2
0°-180°	2993.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	785	785	785	785	785	
5°	787	784	777	784	782	75
15°	750	753	753	763	762	211
25°	682	690	700	714	718	314
35°	588	607	629	654	662	367
45°	482	513	553	588	599	372
55°	370	410	470	511	525	331
65°	252	308	375	422	437	251
75°	140	204	276	325	340	148
85°	41	111	184	232	248	43
90°	11	77	150	196	209	8
95°	9	62	131	174	188	7
105°	6	39	98	138	150	6
115°	4	17	68	102	115	4
125°	2	2	39	69	80	2
135°	1	1	12	36	46	1
145°	0	0	0	7	12	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: P333808

CATALOG NUMBER: S122DP-S865D940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	784.6	784.6	784.6	784.6	784.6
2.5°	790.3	786.9	778.9	784.6	782.4
5°	786.9	783.5	776.7	783.5	782.4
7.5°	781.2	778.9	773.3	781.2	780.1
10°	774.4	772.1	768.7	777.8	776.7
12.5°	763.0	764.2	761.9	771.0	769.9
15°	750.5	752.8	752.8	763.0	761.9
17.5°	734.6	739.1	742.6	752.8	752.8
20°	718.7	724.4	728.9	741.4	741.4
22.5°	701.6	708.4	715.3	727.8	730.1
25°	682.3	690.3	700.5	714.1	717.5
27.5°	659.5	672.1	683.4	700.5	702.8
30°	636.8	651.6	666.4	684.6	688.0
32.5°	611.8	628.8	647.0	668.6	675.5
35°	587.9	607.2	628.8	653.9	661.8
37.5°	561.8	583.4	610.7	637.9	645.9
40°	535.6	560.6	591.3	620.9	631.1
42.5°	510.6	535.6	572.0	605.0	615.2
45°	482.2	512.9	552.7	587.9	599.3
47.5°	454.9	487.8	533.3	569.7	582.2
50°	426.4	461.7	512.9	551.5	564.0
52.5°	399.1	436.7	491.2	531.0	544.7
55°	369.6	410.5	469.6	510.6	525.4
57.5°	341.1	386.6	445.8	490.1	504.9
60°	310.4	359.3	424.2	467.4	483.3
62.5°	283.2	334.3	399.1	445.8	460.5
65°	252.4	308.2	375.3	421.9	436.7
67.5°	225.2	283.2	351.4	398.0	413.9
70°	195.6	254.7	325.2	374.1	387.8
72.5°	168.3	229.7	301.3	349.1	366.2
75°	139.9	203.6	276.3	325.2	340.0
77.5°	112.6	178.5	252.4	301.3	317.3
80°	85.3	154.7	228.6	276.3	292.2
82.5°	62.5	130.8	205.8	253.6	268.4
85°	40.9	111.4	184.2	232.0	247.9
87.5°	25.0	93.2	166.0	212.6	227.4
90°	11.4	77.3	150.1	195.6	209.2
92.5°	10.2	70.5	139.9	184.2	197.9
95°	9.1	62.5	130.8	174.0	187.6
97.5°	8.0	56.9	122.8	164.9	178.5
100°	8.0	50.0	113.7	155.8	168.3
102.5°	6.8	44.3	105.8	146.7	159.2
105°	5.7	38.7	97.8	137.6	150.1
107.5°	5.7	33.0	89.8	128.5	141.0
110°	4.5	27.3	83.0	119.4	131.9



TEST NUMBER: P333808

CATALOG NUMBER: S122DP-S865D940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	4.5	22.7	75.1	111.4	123.9
115°	4.5	17.1	68.2	102.3	114.9
117.5°	3.4	12.5	60.3	94.4	105.8
120°	3.4	8.0	53.4	85.3	97.8
122.5°	3.4	4.5	46.6	77.3	87.6
125°	2.3	2.3	38.7	69.4	79.6
127.5°	2.3	1.1	31.8	60.3	70.5
130°	2.3	1.1	25.0	52.3	61.4
132.5°	2.3	1.1	18.2	44.3	53.4
135°	1.1	1.1	12.5	36.4	45.5
137.5°	1.1	1.1	6.8	28.4	36.4
140°	1.1	0.0	2.3	20.5	27.3
142.5°	1.1	0.0	0.0	13.6	19.3
145°	0.0	0.0	0.0	6.8	12.5
147.5°	0.0	0.0	0.0	1.1	4.5
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)