

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: P333955

Luminaire Tested: **S123DS-S340D835-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333955  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123DS-S340D835-4F0-1E-UDD-D  
Description: DEFINE 3 DIRECT LED LUMINAIRE, DROP SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 340 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1347.0 lumens  
Efficiency: N/A  
Efficacy: 116.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Direct

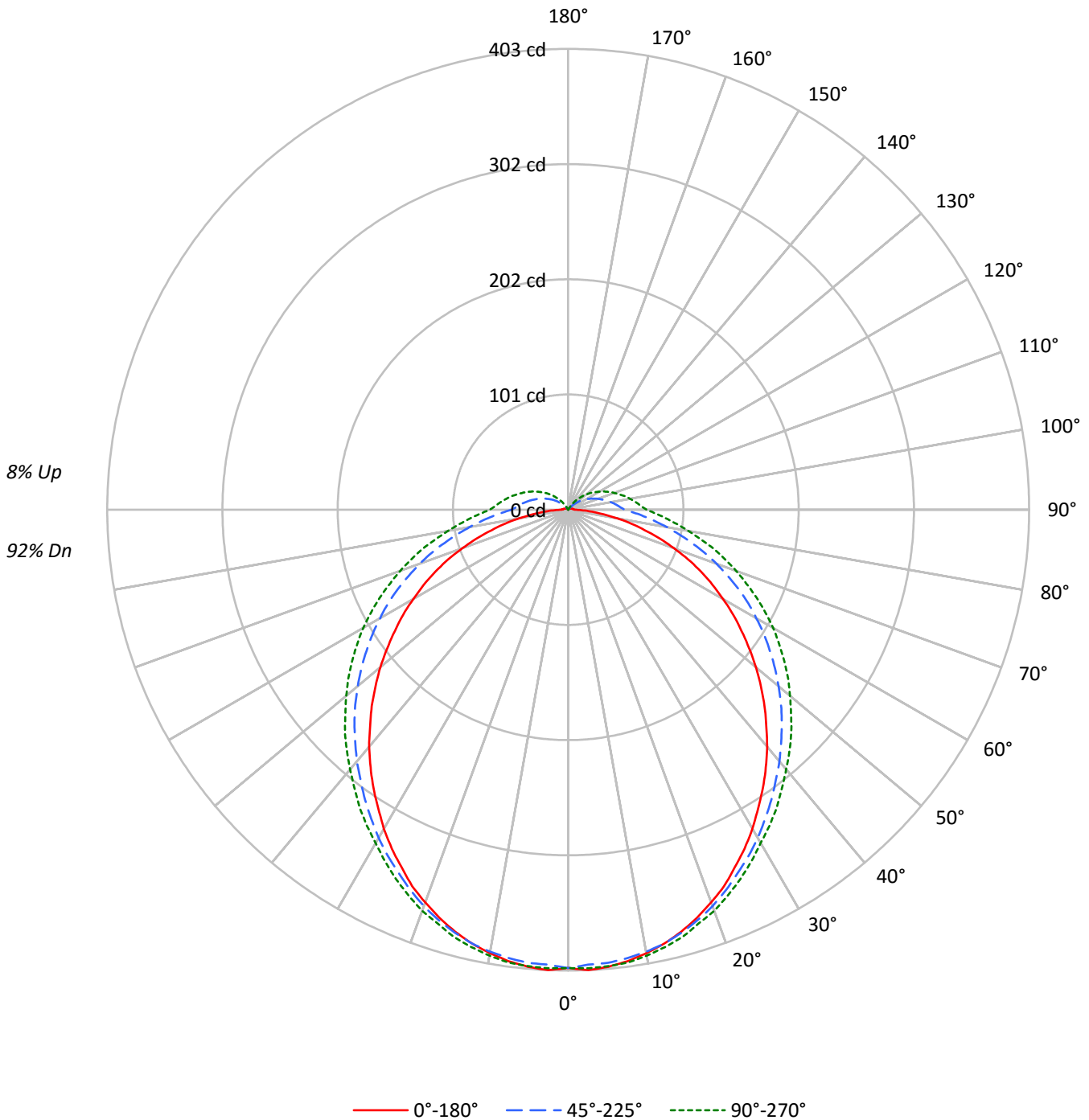
Input Watts (W): 11.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	117	117	117	117	113	113	113	113	106	106	106	100	100	100	94	94	94	92
1	105	100	95	90	102	97	92	88	91	87	84	85	82	80	80	78	76	73
2	95	86	79	72	92	83	77	71	79	73	68	74	69	65	70	66	63	60
3	86	75	67	60	83	73	65	59	69	62	56	65	59	54	61	56	52	50
4	79	66	57	50	76	64	56	49	61	54	48	57	51	46	54	49	45	42
5	72	59	50	43	70	58	49	42	54	47	41	52	45	40	49	43	39	36
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	44	38	34	32
7	62	48	39	33	60	47	38	32	45	37	32	42	36	31	40	35	30	28
8	58	44	35	29	56	43	35	29	41	33	28	39	32	28	37	31	27	25
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24	22
10	50	37	29	24	49	36	29	24	35	28	23	33	27	23	32	26	22	20

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

	0°	45°	90°
0°	4314	4314	4314
5°	4336	4298	4331
10°	4304	4290	4328
15°	4257	4267	4310
20°	4187	4226	4276
25°	4096	4164	4232
30°	4005	4119	4184
35°	3901	4068	4177
40°	3804	4037	4166
45°	3696	4022	4200
50°	3590	4021	4240
55°	3474	4040	4326
60°	3365	4088	4456
65°	3258	4182	4625
70°	3091	4343	4919
75°	2886	4650	5465
80°	2678	5411	6602
85°	2643	8201	10572



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.0	2.8
10°-20°	108.4	8.0
20°-30°	162.1	12.0
30°-40°	193.5	14.4
40°-50°	202.5	15.0
50°-60°	190.0	14.1
60°-70°	158.7	11.8
70°-80°	113.5	8.4
80°-90°	67.5	5.0
90°-100°	42.4	3.1
100°-110°	31.2	2.3
110°-120°	20.8	1.5
120°-130°	11.9	0.9
130°-140°	5.3	0.4
140°-150°	1.1	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	308.5	22.9
0°-40°	502.0	37.3
0°-60°	894.5	66.4
0°-90°	1234.3	91.6
90°-120°	94.4	7.0
90°-150°	112.8	8.4
90°-180°	113.0	8.4
0°-180°	1347.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	401	401	401	401	401	
5°	401	400	398	401	401	38
15°	382	383	383	387	387	108
25°	345	349	351	356	356	159
35°	297	304	310	316	318	186
45°	243	253	264	272	276	187
55°	185	200	215	227	230	166
65°	128	145	164	177	182	126
75°	69	90	112	126	131	74
85°	21	43	66	81	86	22
90°	6	27	49	64	68	4
95°	5	22	43	57	61	4
105°	4	14	33	45	49	4
115°	2	7	23	34	37	2
125°	1	1	14	23	26	1
135°	1	0	5	13	15	1
145°	0	0	0	4	5	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: P333955

CATALOG NUMBER: S123DS-S340D835-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	400.8	400.8	400.8	400.8	400.8
2.5°	403.0	401.7	398.2	401.7	401.3
5°	401.3	400.4	397.8	401.3	400.8
7.5°	398.2	398.2	395.6	399.9	399.5
10°	393.8	394.7	392.5	396.9	396.0
12.5°	388.6	389.9	388.6	392.5	391.7
15°	382.0	383.4	382.9	387.3	386.8
17.5°	374.2	376.8	376.4	380.3	379.4
20°	365.5	368.1	368.9	372.9	373.3
22.5°	356.3	358.9	360.2	365.5	365.0
25°	344.9	349.3	350.6	356.3	356.3
27.5°	334.0	338.8	341.4	346.2	346.7
30°	322.2	327.9	331.4	336.6	336.6
32.5°	309.1	315.7	320.5	326.2	327.5
35°	296.9	303.9	309.6	316.1	317.9
37.5°	283.8	291.7	298.2	305.6	306.9
40°	270.7	278.6	287.3	294.7	296.5
42.5°	256.3	266.3	275.5	283.8	286.4
45°	242.8	253.2	264.2	272.5	275.9
47.5°	228.4	240.1	252.4	261.5	264.2
50°	214.4	226.6	240.1	250.2	253.2
52.5°	199.5	212.6	227.9	238.4	242.3
55°	185.1	199.5	215.3	227.0	230.5
57.5°	171.2	186.0	203.0	214.8	218.7
60°	156.3	172.0	189.9	202.2	207.0
62.5°	142.3	158.5	177.7	189.9	194.3
65°	127.9	145.0	164.2	177.3	181.6
67.5°	113.5	131.4	150.6	165.0	168.5
70°	98.2	117.0	138.0	151.9	156.3
72.5°	84.3	103.0	124.9	139.3	143.6
75°	69.4	89.9	111.8	126.2	131.4
77.5°	56.8	77.3	99.1	114.4	118.3
80°	43.2	64.6	87.3	102.2	106.5
82.5°	31.4	53.3	76.4	91.3	95.6
85°	21.4	43.2	66.4	81.2	85.6
87.5°	13.1	34.9	57.2	72.0	76.4
90°	5.7	27.1	49.3	64.2	68.5
92.5°	5.2	24.0	45.8	60.3	64.2
95°	4.8	21.8	43.2	56.8	61.1
97.5°	4.4	20.1	40.6	53.7	58.1
100°	3.9	17.9	38.0	50.6	55.0
102.5°	3.5	15.7	35.4	47.6	52.0
105°	3.5	14.0	32.7	45.0	48.9
107.5°	3.1	12.2	30.1	41.9	45.8
110°	2.6	10.5	27.9	39.3	42.8



TEST NUMBER: P333955

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	2.6	8.7	25.3	36.2	40.2
115°	2.2	7.4	23.1	33.6	37.1
117.5°	2.2	5.7	20.5	31.0	34.5
120°	1.7	3.9	18.3	28.4	31.4
122.5°	1.7	2.6	16.2	25.8	28.8
125°	1.3	1.3	14.0	23.1	26.2
127.5°	1.3	0.9	11.8	20.5	23.6
130°	1.3	0.9	9.6	17.9	20.5
132.5°	0.9	0.9	7.4	15.3	18.3
135°	0.9	0.4	5.2	13.1	15.3
137.5°	0.9	0.4	3.5	10.5	12.7
140°	0.4	0.4	1.7	8.3	10.5
142.5°	0.4	0.0	0.0	5.7	7.9
145°	0.4	0.0	0.0	3.5	5.2
147.5°	0.0	0.0	0.0	1.3	3.1
150°	0.0	0.0	0.0	0.0	0.9
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)