

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P333950

Luminaire Tested: S123DP-S340D830-4F0-1E-UDD-D

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2019  
Report Number: P333950  
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  
Product Line: NEO-RAY  
Catalog Number: S123DP-S340D830-4F0-1E-UDD-D  
Description: DEFINE 3 DIRECT LED LUMINAIRE, DROP SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 340 LUMENS PER FOOT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1269.6 lumens  
Efficiency: N/A  
Efficacy: 109.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')  
CIE Type: Direct

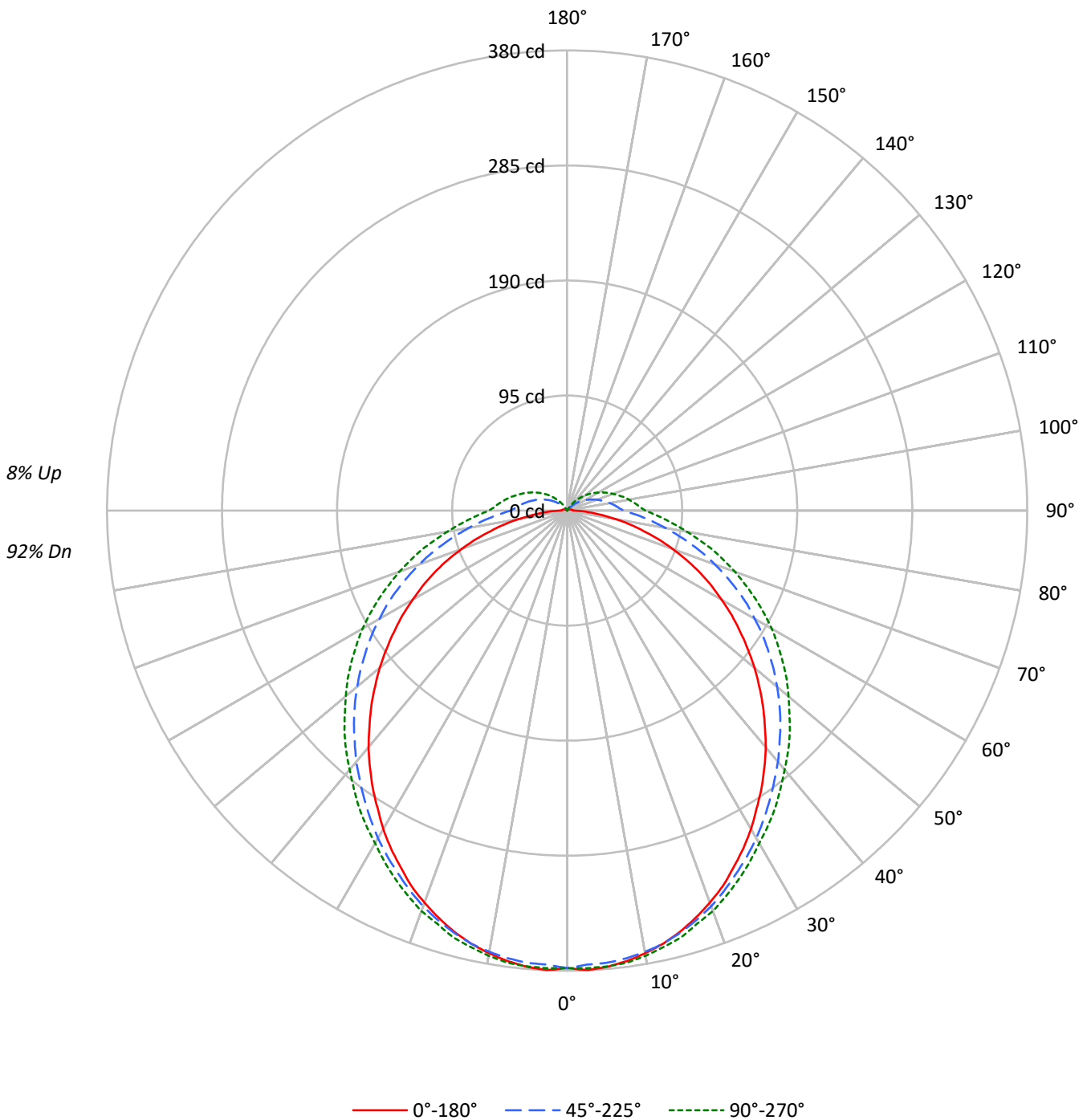
Input Watts (W): 11.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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

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

	0°	45°	90°
0°	4067	4067	4067
5°	4079	3964	3967
10°	4042	3873	3854
15°	3991	3769	3730
20°	3916	3650	3595
25°	3824	3515	3452
30°	3730	3393	3307
35°	3624	3262	3192
40°	3524	3145	3068
45°	3412	3032	2970
50°	3302	2919	2861
55°	3180	2805	2763
60°	3061	2688	2663
65°	2940	2564	2543
70°	2757	2424	2420
75°	2524	2266	2297
80°	2256	2108	2154
85°	2015	2002	2073

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3412 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.8	2.8
10°-20°	102.2	8.0
20°-30°	152.8	12.0
30°-40°	182.4	14.4
40°-50°	190.9	15.0
50°-60°	179.1	14.1
60°-70°	149.6	11.8
70°-80°	107.0	8.4
80°-90°	63.6	5.0
90°-100°	40.0	3.1
100°-110°	29.4	2.3
110°-120°	19.6	1.5
120°-130°	11.2	0.9
130°-140°	5.0	0.4
140°-150°	1.0	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	290.8	22.9
0°-40°	473.2	37.3
0°-60°	843.2	66.4
0°-90°	1163.3	91.6
90°-120°	89.0	7.0
90°-150°	106.3	8.4
90°-180°	106.0	8.3
0°-180°	1269.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	378	378	378	378	378	
5°	378	377	375	378	378	36
15°	360	361	361	365	365	101
25°	325	329	330	336	336	150
35°	280	286	292	298	300	175
45°	229	239	249	257	260	176
55°	174	188	203	214	217	156
65°	121	137	155	167	171	119
75°	65	85	105	119	124	70
85°	20	41	63	76	81	21
90°	5	26	46	60	65	4
95°	4	21	41	54	58	4
105°	3	13	31	42	46	3
115°	2	7	22	32	35	2
125°	1	1	13	22	25	1
135°	1	0	5	12	14	1
145°	0	0	0	3	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: P333950

CATALOG NUMBER: S123DP-S340D830-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	377.8	377.8	377.8	377.8	377.8
2.5°	379.8	378.6	375.3	378.6	378.2
5°	378.2	377.4	374.9	378.2	377.8
7.5°	375.3	375.3	372.9	377.0	376.6
10°	371.2	372.0	370.0	374.1	373.3
12.5°	366.3	367.5	366.3	370.0	369.1
15°	360.1	361.3	360.9	365.0	364.6
17.5°	352.7	355.2	354.7	358.4	357.6
20°	344.5	346.9	347.7	351.5	351.9
22.5°	335.8	338.3	339.5	344.5	344.0
25°	325.1	329.2	330.5	335.8	335.8
27.5°	314.8	319.4	321.8	326.3	326.8
30°	303.7	309.1	312.4	317.3	317.3
32.5°	291.4	297.5	302.1	307.4	308.7
35°	279.8	286.4	291.8	298.0	299.6
37.5°	267.5	274.9	281.1	288.1	289.3
40°	255.2	262.6	270.8	277.8	279.4
42.5°	241.6	251.0	259.7	267.5	270.0
45°	228.8	238.7	249.0	256.8	260.1
47.5°	215.2	226.3	237.9	246.5	249.0
50°	202.1	213.6	226.3	235.8	238.7
52.5°	188.1	200.4	214.8	224.7	228.4
55°	174.5	188.1	202.9	214.0	217.3
57.5°	161.3	175.3	191.4	202.5	206.2
60°	147.3	162.1	179.0	190.5	195.1
62.5°	134.2	149.4	167.5	179.0	183.1
65°	120.6	136.6	154.7	167.1	171.2
67.5°	107.0	123.9	142.0	155.6	158.9
70°	92.6	110.3	130.0	143.2	147.3
72.5°	79.4	97.1	117.7	131.3	135.4
75°	65.4	84.8	105.4	118.9	123.9
77.5°	53.5	72.8	93.4	107.8	111.5
80°	40.7	60.9	82.3	96.3	100.4
82.5°	29.6	50.2	72.0	86.0	90.1
85°	20.2	40.7	62.6	76.5	80.7
87.5°	12.3	32.9	53.9	67.9	72.0
90°	5.3	25.5	46.5	60.5	64.6
92.5°	4.9	22.6	43.2	56.8	60.5
95°	4.5	20.6	40.7	53.5	57.6
97.5°	4.1	18.9	38.3	50.6	54.7
100°	3.7	16.9	35.8	47.7	51.9
102.5°	3.3	14.8	33.3	44.9	49.0
105°	3.3	13.2	30.9	42.4	46.1
107.5°	2.9	11.5	28.4	39.5	43.2
110°	2.5	9.9	26.3	37.0	40.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	2.5	8.2	23.9	34.2	37.9
115°	2.1	7.0	21.8	31.7	35.0
117.5°	2.1	5.3	19.3	29.2	32.5
120°	1.6	3.7	17.3	26.7	29.6
122.5°	1.6	2.5	15.2	24.3	27.2
125°	1.2	1.2	13.2	21.8	24.7
127.5°	1.2	0.8	11.1	19.3	22.2
130°	1.2	0.8	9.1	16.9	19.3
132.5°	0.8	0.8	7.0	14.4	17.3
135°	0.8	0.4	4.9	12.3	14.4
137.5°	0.8	0.4	3.3	9.9	11.9
140°	0.4	0.4	1.6	7.8	9.9
142.5°	0.4	0.0	0.0	5.3	7.4
145°	0.4	0.0	0.0	3.3	4.9
147.5°	0.0	0.0	0.0	1.2	2.9
150°	0.0	0.0	0.0	0.0	0.8
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)