

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: P333972

Luminaire Tested: S123DP-S775D930-4F0-1E-UDD-D

Issue Date: 3/3/2020

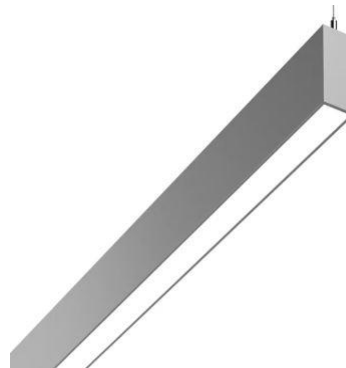
**Test Information**

Test Method: LM-79-2019  
Report Number: P333972  
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-S775D930-4F0-1E-UDD-D  
Description: DEFINE 3 DIRECT LED LUMINAIRE, DROP SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 775 LUMENS PER FOOT  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2515.4 lumens  
Efficiency: N/A  
Efficacy: 95.6 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

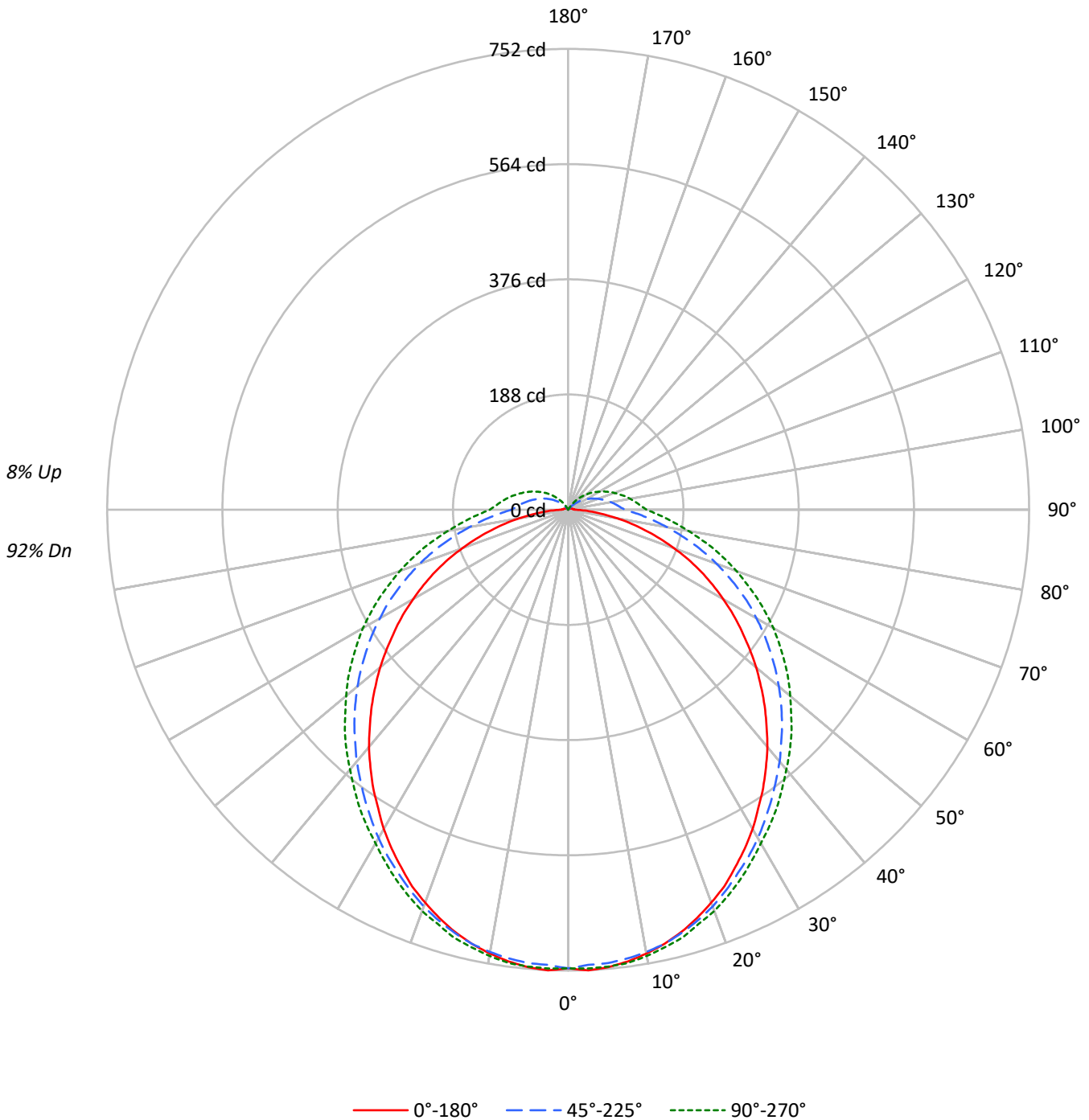
Input Watts (W): 26.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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

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

	0°	45°	90°
0°	8056	8056	8056
5°	8081	7853	7857
10°	8008	7673	7634
15°	7906	7467	7390
20°	7758	7232	7121
25°	7576	6963	6839
30°	7390	6720	6552
35°	7180	6462	6323
40°	6981	6230	6079
45°	6760	6006	5884
50°	6541	5783	5668
55°	6300	5556	5474
60°	6065	5326	5276
65°	5825	5081	5039
70°	5460	4803	4796
75°	5001	4487	4549
80°	4474	4178	4267
85°	3980	3963	4104

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6760 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.0	2.8
10°-20°	202.4	8.0
20°-30°	302.7	12.0
30°-40°	361.4	14.4
40°-50°	378.1	15.0
50°-60°	354.8	14.1
60°-70°	296.4	11.8
70°-80°	211.9	8.4
80°-90°	126.1	5.0
90°-100°	79.2	3.1
100°-110°	58.2	2.3
110°-120°	38.9	1.5
120°-130°	22.2	0.9
130°-140°	9.9	0.4
140°-150°	2.1	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	576.1	22.9
0°-40°	937.4	37.3
0°-60°	1670.4	66.4
0°-90°	2304.8	91.6
90°-120°	176.4	7.0
90°-150°	210.6	8.4
90°-180°	211.0	8.4
0°-180°	2515.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	748	748	748	748	748	
5°	749	748	743	749	748	71
15°	713	716	715	723	722	201
25°	644	652	655	665	665	297
35°	554	567	578	590	594	347
45°	453	473	493	509	515	350
55°	346	373	402	424	430	309
65°	239	271	307	331	339	236
75°	130	168	209	236	245	138
85°	40	81	124	152	160	41
90°	11	50	92	120	128	8
95°	9	41	81	106	114	7
105°	6	26	61	84	91	7
115°	4	14	43	63	69	4
125°	2	2	26	43	49	2
135°	2	1	10	24	28	1
145°	1	0	0	6	10	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: P333972

CATALOG NUMBER: S123DP-S775D930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	748.4	748.4	748.4	748.4	748.4
2.5°	752.5	750.1	743.6	750.1	749.3
5°	749.3	747.6	742.7	749.3	748.4
7.5°	743.6	743.6	738.7	746.8	746.0
10°	735.4	737.0	733.0	741.1	739.5
12.5°	725.6	728.1	725.6	733.0	731.3
15°	713.4	715.8	715.0	723.2	722.4
17.5°	698.7	703.6	702.8	710.1	708.5
20°	682.4	687.3	688.9	696.3	697.1
22.5°	665.3	670.2	672.6	682.4	681.6
25°	644.1	652.2	654.7	665.3	665.3
27.5°	623.7	632.7	637.6	646.5	647.3
30°	601.7	612.3	618.8	628.6	628.6
32.5°	577.2	589.5	598.4	609.0	611.5
35°	554.4	567.4	578.0	590.3	593.5
37.5°	529.9	544.6	556.8	570.7	573.2
40°	505.5	520.2	536.5	550.3	553.6
42.5°	478.6	497.3	514.5	529.9	534.8
45°	453.3	472.9	493.3	508.7	515.3
47.5°	426.4	448.4	471.2	488.4	493.3
50°	400.3	423.1	448.4	467.2	472.9
52.5°	372.6	397.1	425.6	445.2	452.5
55°	345.7	372.6	401.9	424.0	430.5
57.5°	319.6	347.3	379.1	401.1	408.5
60°	291.9	321.2	354.7	377.5	386.5
62.5°	265.8	296.0	331.8	354.7	362.8
65°	238.9	270.7	306.6	331.0	339.2
67.5°	212.0	245.4	281.3	308.2	314.7
70°	183.4	218.5	257.6	283.7	291.9
72.5°	157.4	192.4	233.2	260.1	268.2
75°	129.6	168.0	208.7	235.6	245.4
77.5°	106.0	144.3	185.1	213.6	220.9
80°	80.7	120.7	163.1	190.8	198.9
82.5°	58.7	99.5	142.7	170.4	178.6
85°	39.9	80.7	123.9	151.6	159.8
87.5°	24.5	65.2	106.8	134.5	142.7
90°	10.6	50.5	92.1	119.8	128.0
92.5°	9.8	44.8	85.6	112.5	119.8
95°	9.0	40.8	80.7	106.0	114.1
97.5°	8.2	37.5	75.8	100.3	108.4
100°	7.3	33.4	70.9	94.6	102.7
102.5°	6.5	29.4	66.0	88.9	97.0
105°	6.5	26.1	61.1	84.0	91.3
107.5°	5.7	22.8	56.3	78.3	85.6
110°	4.9	19.6	52.2	73.4	79.9

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CATALOG NUMBER: S123DP-S775D930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	4.9	16.3	47.3	67.7	75.0
115°	4.1	13.9	43.2	62.8	69.3
117.5°	4.1	10.6	38.3	57.9	64.4
120°	3.3	7.3	34.2	53.0	58.7
122.5°	3.3	4.9	30.2	48.1	53.8
125°	2.4	2.4	26.1	43.2	48.9
127.5°	2.4	1.6	22.0	38.3	44.0
130°	2.4	1.6	17.9	33.4	38.3
132.5°	1.6	1.6	13.9	28.5	34.2
135°	1.6	0.8	9.8	24.5	28.5
137.5°	1.6	0.8	6.5	19.6	23.6
140°	0.8	0.8	3.3	15.5	19.6
142.5°	0.8	0.0	0.0	10.6	14.7
145°	0.8	0.0	0.0	6.5	9.8
147.5°	0.0	0.0	0.0	2.4	5.7
150°	0.0	0.0	0.0	0.0	1.6
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)