

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: P334302

Luminaire Tested: **S125DS-S850D830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334302  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DS-S850D830-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT LED LUMINAIRE, DROP SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 850 LUMENS PER FOOT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2978.2 lumens  
Efficiency: N/A  
Efficacy: 113.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: Direct

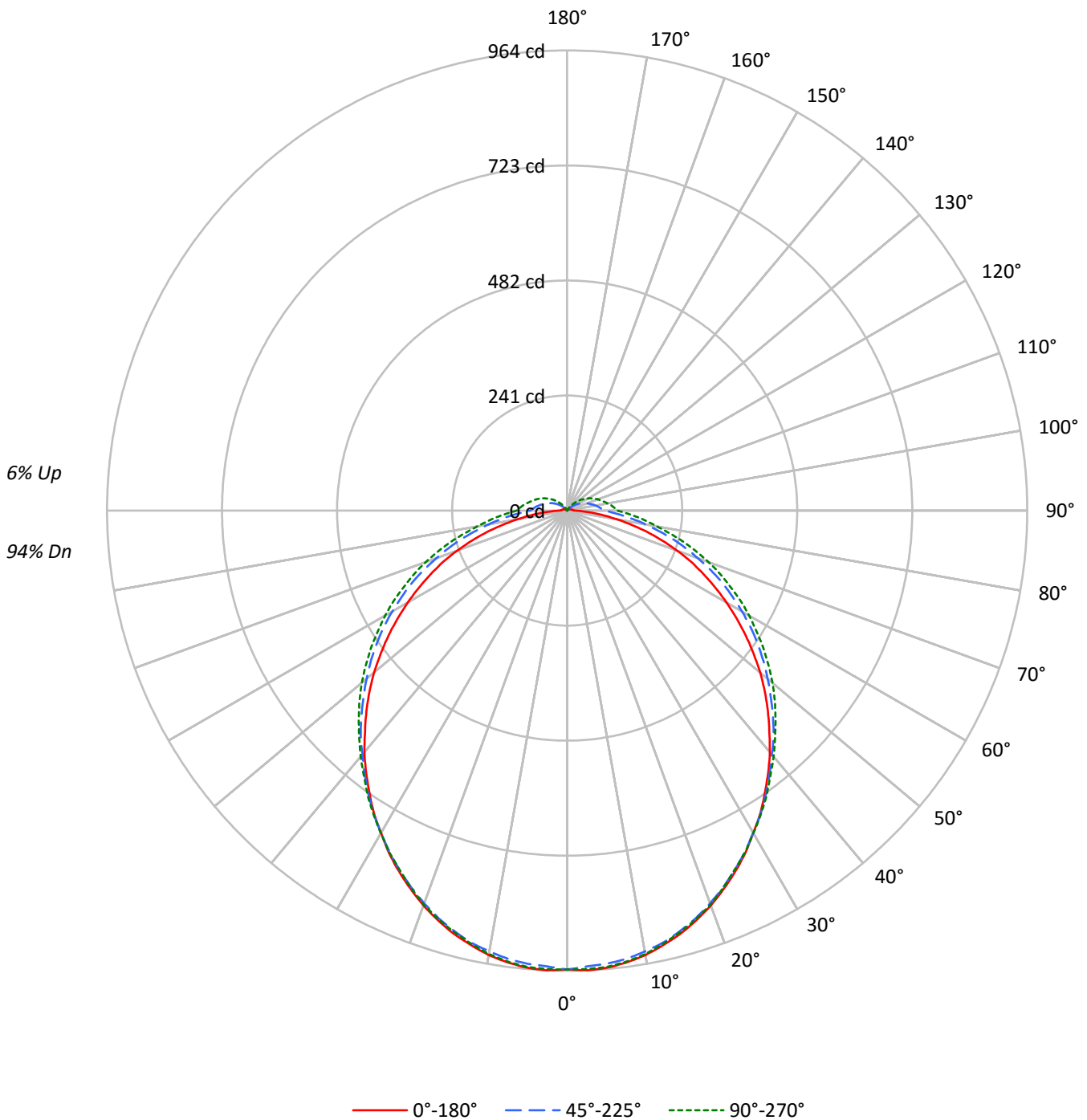
Input Watts (W): 26.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	106	101	96	92	103	98	94	90	93	89	86	88	85	82	83	81	79	76
2	96	88	80	74	93	85	78	73	81	75	70	76	72	68	72	69	65	63
3	88	77	68	61	84	75	67	60	71	64	59	67	61	57	64	59	55	53
4	80	68	59	52	77	66	58	51	63	55	50	60	53	48	57	51	47	45
5	74	60	51	44	71	59	50	44	56	49	43	53	47	42	51	45	41	39
6	68	54	45	39	66	53	45	38	51	43	38	48	42	37	46	40	36	34
7	63	49	40	34	61	48	40	34	46	39	33	44	37	33	42	36	32	30
8	59	45	36	30	57	44	36	30	42	35	30	40	34	29	39	33	29	27
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	23	22

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

	0°	45°	90°
0°	6209	6209	6209
5°	6233	6178	6220
10°	6200	6150	6187
15°	6138	6100	6113
20°	6050	6018	6037
25°	5944	5924	5917
30°	5813	5813	5820
35°	5692	5722	5744
40°	5570	5626	5674
45°	5432	5570	5639
50°	5303	5512	5645
55°	5147	5487	5646
60°	4979	5466	5686
65°	4811	5488	5761
70°	4628	5499	5944
75°	4327	5692	6281
80°	3961	6204	7115
85°	3838	8588	10685



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.0	3.1
10°-20°	258.3	8.7
20°-30°	384.0	12.9
30°-40°	454.8	15.3
40°-50°	470.2	15.8
50°-60°	433.1	14.5
60°-70°	350.2	11.8
70°-80°	234.3	7.9
80°-90°	121.1	4.1
90°-100°	68.2	2.3
100°-110°	50.3	1.7
110°-120°	33.7	1.1
120°-130°	19.1	0.6
130°-140°	8.3	0.3
140°-150°	1.7	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	733.3	24.6
0°-40°	1188.1	39.9
0°-60°	2091.4	70.2
0°-90°	2797.0	93.9
90°-120°	152.2	5.1
90°-150°	181.2	6.1
90°-180°	181.0	6.1
0°-180°	2978.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	961	961	961	961	961	
5°	961	960	953	960	960	91
15°	918	919	912	918	914	259
25°	834	837	831	835	830	384
35°	722	729	726	729	729	452
45°	595	605	610	616	617	459
55°	457	472	487	498	501	409
65°	315	336	359	373	377	312
75°	173	198	228	247	252	184
85°	52	83	116	137	144	54
90°	15	45	77	99	106	10
95°	12	37	69	90	96	10
105°	8	24	52	71	77	9
115°	6	12	37	54	59	6
125°	4	3	22	37	42	3
135°	2	1	8	20	24	1
145°	1	0	0	5	8	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: P334302

CATALOG NUMBER: S125DS-S850D830-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	961.4	961.4	961.4	961.4	961.4
2.5°	964.2	962.3	955.7	962.3	961.4
5°	961.4	959.5	952.9	960.5	959.5
7.5°	954.8	953.9	947.3	953.9	952.9
10°	945.4	945.4	937.8	944.4	943.5
12.5°	932.2	933.1	927.5	932.2	929.3
15°	918.0	919.0	912.4	918.0	914.3
17.5°	900.1	902.0	895.4	900.1	897.3
20°	880.3	882.2	875.6	878.4	878.4
22.5°	857.7	861.5	853.9	857.7	854.9
25°	834.1	837.0	831.3	835.1	830.4
27.5°	808.7	812.5	805.9	808.7	806.8
30°	779.5	785.1	779.5	781.4	780.4
32.5°	753.1	757.8	754.0	755.9	755.0
35°	722.0	728.6	725.8	728.6	728.6
37.5°	691.8	697.5	696.5	700.3	699.4
40°	660.7	668.3	667.3	671.1	673.0
42.5°	626.8	637.2	640.0	644.7	644.7
45°	594.7	605.1	609.8	616.4	617.4
47.5°	561.8	571.2	578.7	588.1	590.0
50°	527.8	538.2	548.6	558.9	561.8
52.5°	492.0	505.2	518.4	529.7	531.6
55°	457.1	472.2	487.3	497.7	501.4
57.5°	421.3	439.2	456.2	467.5	470.3
60°	385.5	404.4	423.2	437.3	440.2
62.5°	350.6	369.5	390.2	406.2	410.0
65°	314.8	336.5	359.1	373.2	377.0
67.5°	281.8	302.6	325.2	342.1	346.9
70°	245.1	266.7	291.2	309.2	314.8
72.5°	209.2	231.9	259.2	279.0	282.8
75°	173.4	197.9	228.1	246.9	251.7
77.5°	138.6	166.8	195.1	215.8	219.6
80°	106.5	134.8	166.8	187.6	191.3
82.5°	77.3	107.4	140.4	160.2	167.8
85°	51.8	82.9	115.9	136.7	144.2
87.5°	33.0	63.2	95.2	116.9	123.5
90°	15.1	45.2	77.3	99.0	105.6
92.5°	13.2	40.5	73.5	94.3	100.9
95°	12.3	36.8	68.8	89.5	96.1
97.5°	11.3	33.9	65.0	84.8	91.4
100°	10.4	30.2	60.3	80.1	85.8
102.5°	9.4	27.3	56.6	75.4	81.1
105°	8.5	23.6	51.8	70.7	77.3
107.5°	7.5	20.7	48.1	66.9	72.6
110°	6.6	17.9	44.3	62.2	68.8



TEST NUMBER: P334302

CATALOG NUMBER: S125DS-S850D830-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	6.6	15.1	40.5	57.5	64.1
115°	5.7	12.3	36.8	53.7	59.4
117.5°	4.7	9.4	33.0	49.0	55.6
120°	4.7	7.5	29.2	45.2	50.9
122.5°	3.8	4.7	25.4	40.5	46.2
125°	3.8	2.8	21.7	36.8	41.5
127.5°	2.8	1.9	17.9	32.0	37.7
130°	2.8	1.9	15.1	28.3	33.0
132.5°	1.9	1.9	11.3	24.5	28.3
135°	1.9	0.9	7.5	19.8	24.5
137.5°	1.9	0.9	4.7	16.0	19.8
140°	0.9	0.9	1.9	12.3	16.0
142.5°	0.9	0.0	0.0	8.5	12.3
145°	0.9	0.0	0.0	4.7	8.5
147.5°	0.0	0.0	0.0	1.9	3.8
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)