

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: P333978

Luminaire Tested: **S123DS-S1000D935-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333978
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-S1000D935-4F0-1E-UDD-D
Description: DEFINE 3 DIRECT LED LUMINAIRE, DROP SATIN WHITE DIFFUSER
PENDANT/SURFACE/WALL MOUNT, 1000 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3387.5 lumens
Efficiency: N/A
Efficacy: 97.3 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

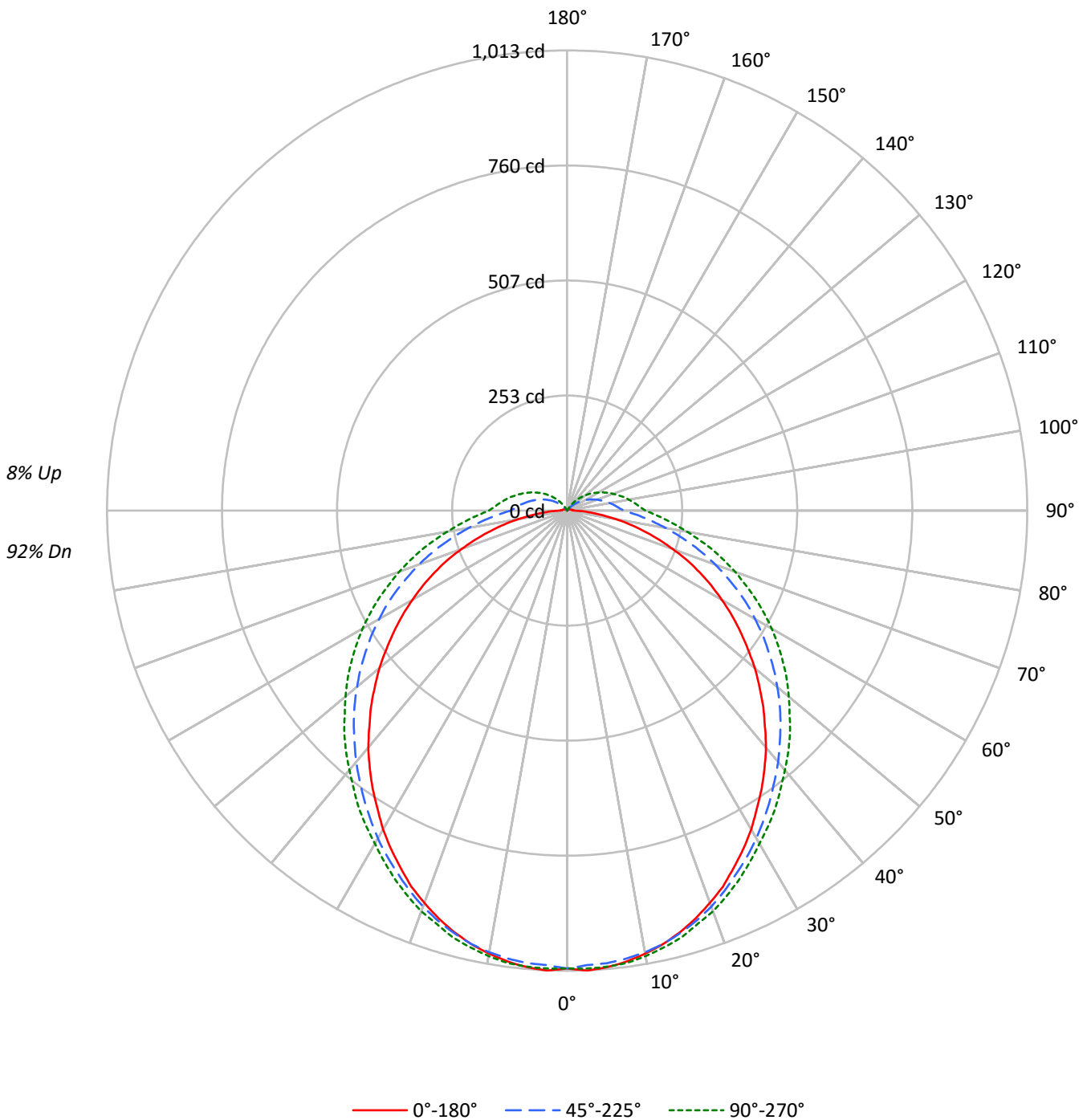
Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	10850	10850	10850
5°	10903	10808	10891
10°	10825	10789	10885
15°	10706	10730	10841
20°	10527	10628	10754
25°	10302	10472	10641
30°	10071	10358	10521
35°	9811	10230	10503
40°	9566	10152	10475
45°	9293	10112	10563
50°	9028	10113	10664
55°	8736	10158	10879
60°	8463	10282	11203
65°	8194	10514	11635
70°	7773	10921	12371
75°	7261	11691	13745
80°	6738	13612	16606
85°	6644	20612	26578



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.6	2.8
10°-20°	272.6	8.0
20°-30°	407.6	12.0
30°-40°	486.7	14.4
40°-50°	509.2	15.0
50°-60°	477.8	14.1
60°-70°	399.1	11.8
70°-80°	285.4	8.4
80°-90°	169.8	5.0
90°-100°	106.7	3.2
100°-110°	78.4	2.3
110°-120°	52.4	1.5
120°-130°	29.9	0.9
130°-140°	13.4	0.4
140°-150°	2.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	775.8	22.9
0°-40°	1262.5	37.3
0°-60°	2249.5	66.4
0°-90°	3103.9	91.6
90°-120°	237.5	7.0
90°-150°	283.6	8.4
90°-180°	284.0	8.4
0°-180°	3387.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1008	1008	1008	1008	1008	
5°	1009	1007	1000	1009	1008	96
15°	961	964	963	974	973	271
25°	867	878	882	896	896	400
35°	747	764	778	795	799	467
45°	610	637	664	685	694	471
55°	466	502	541	571	580	417
65°	322	364	413	446	457	318
75°	175	226	281	317	330	186
85°	54	109	167	204	215	55
90°	14	68	124	161	172	10
95°	12	55	109	143	154	9
105°	9	35	82	113	123	9
115°	6	19	58	84	93	6
125°	3	3	35	58	66	3
135°	2	1	13	33	38	2
145°	1	0	0	9	13	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: P333978

CATALOG NUMBER: S123DS-S1000D935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1008.0	1008.0	1008.0	1008.0	1008.0
2.5°	1013.4	1010.1	1001.4	1010.1	1009.1
5°	1009.1	1006.9	1000.3	1009.1	1008.0
7.5°	1001.4	1001.4	994.8	1005.8	1004.7
10°	990.4	992.6	987.1	998.1	995.9
12.5°	977.2	980.5	977.2	987.1	984.9
15°	960.7	964.0	962.9	973.9	972.8
17.5°	941.0	947.6	946.5	956.3	954.2
20°	919.0	925.6	927.8	937.7	938.8
22.5°	896.0	902.5	905.8	919.0	917.9
25°	867.4	878.4	881.7	896.0	896.0
27.5°	840.0	852.0	858.6	870.7	871.8
30°	810.3	824.6	833.4	846.5	846.5
32.5°	777.4	793.8	805.9	820.2	823.5
35°	746.6	764.2	778.5	794.9	799.3
37.5°	713.7	733.5	749.9	768.6	771.9
40°	680.8	700.5	722.5	741.1	745.5
42.5°	644.5	669.8	692.8	713.7	720.3
45°	610.5	636.8	664.3	685.1	693.9
47.5°	574.2	603.9	634.6	657.7	664.3
50°	539.1	569.9	603.9	629.1	636.8
52.5°	501.8	534.7	573.1	599.5	609.4
55°	465.5	501.8	541.3	571.0	579.7
57.5°	430.4	467.7	510.6	540.2	550.1
60°	393.1	432.6	477.6	508.4	520.4
62.5°	357.9	398.6	446.9	477.6	488.6
65°	321.7	364.5	412.8	445.8	456.8
67.5°	285.5	330.5	378.8	415.0	423.8
70°	247.0	294.3	347.0	382.1	393.1
72.5°	211.9	259.1	314.0	350.3	361.2
75°	174.6	226.2	281.1	317.3	330.5
77.5°	142.7	194.3	249.2	287.7	297.6
80°	108.7	162.5	219.6	256.9	267.9
82.5°	79.1	134.0	192.1	229.5	240.5
85°	53.8	108.7	166.9	204.2	215.2
87.5°	32.9	87.8	143.8	181.2	192.1
90°	14.3	68.1	124.1	161.4	172.4
92.5°	13.2	60.4	115.3	151.5	161.4
95°	12.1	54.9	108.7	142.7	153.7
97.5°	11.0	50.5	102.1	135.1	146.0
100°	9.9	45.0	95.5	127.4	138.3
102.5°	8.8	39.5	88.9	119.7	130.7
105°	8.8	35.1	82.3	113.1	123.0
107.5°	7.7	30.7	75.8	105.4	115.3
110°	6.6	26.4	70.3	98.8	107.6



TEST NUMBER: P333978

CATALOG NUMBER: S123DS-S1000D935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	6.6	22.0	63.7	91.1	101.0
115°	5.5	18.7	58.2	84.5	93.3
117.5°	5.5	14.3	51.6	78.0	86.7
120°	4.4	9.9	46.1	71.4	79.1
122.5°	4.4	6.6	40.6	64.8	72.5
125°	3.3	3.3	35.1	58.2	65.9
127.5°	3.3	2.2	29.6	51.6	59.3
130°	3.3	2.2	24.2	45.0	51.6
132.5°	2.2	2.2	18.7	38.4	46.1
135°	2.2	1.1	13.2	32.9	38.4
137.5°	2.2	1.1	8.8	26.4	31.8
140°	1.1	1.1	4.4	20.9	26.4
142.5°	1.1	0.0	0.0	14.3	19.8
145°	1.1	0.0	0.0	8.8	13.2
147.5°	0.0	0.0	0.0	3.3	7.7
150°	0.0	0.0	0.0	0.0	2.2
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)