

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: P242495

Luminaire Tested: **S123DR-S1165D927-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242495
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: S123DR-S1165D927-X4F0-XX-UDD-D-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3622.2 lumens
Efficiency: N/A
Efficacy: 88.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.23' x L: 3.88' x H: 0.08')
CIE Type: Direct

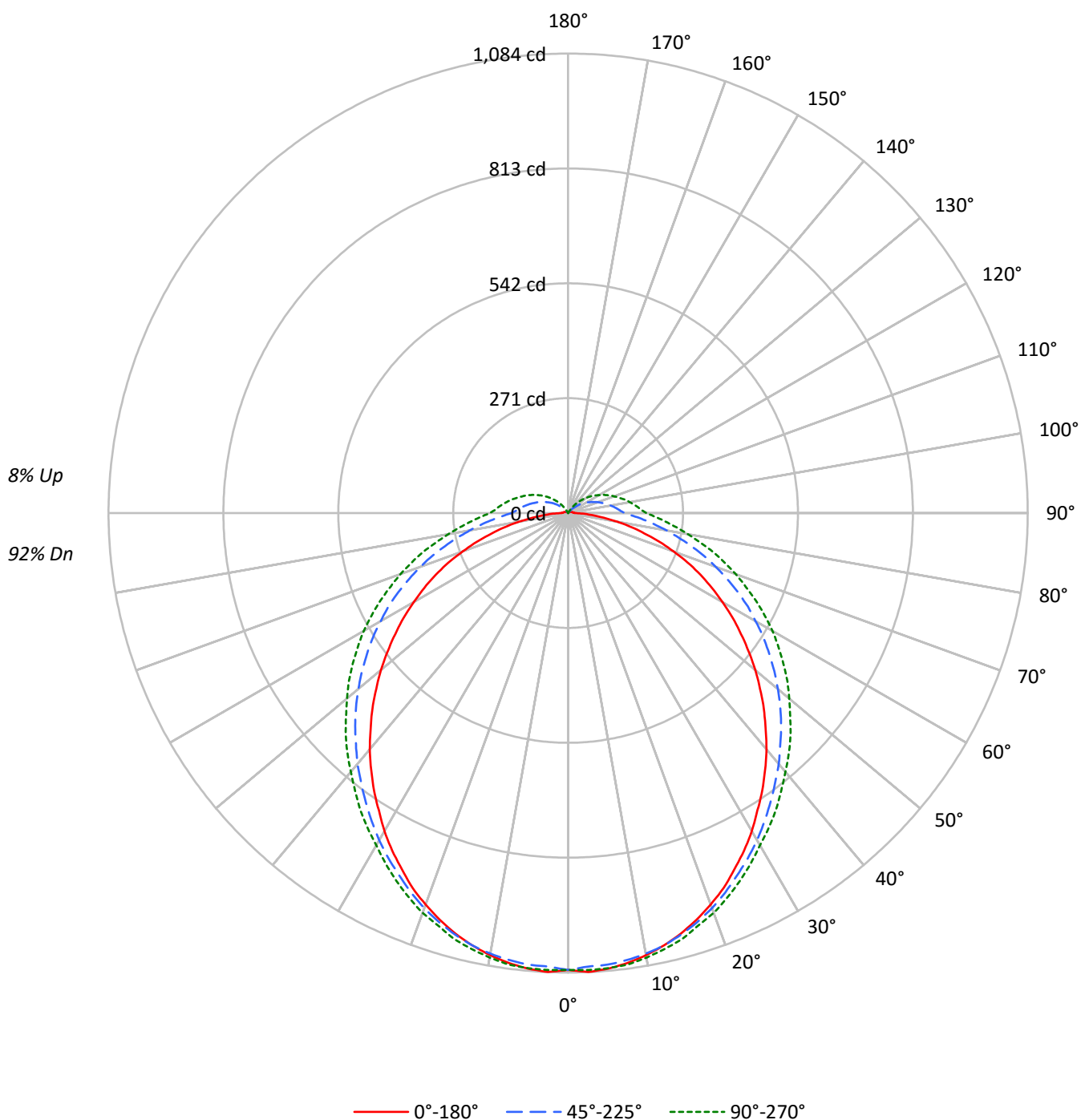
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13064	13064	13064
5°	13104	12712	12710
10°	12985	12396	12317
15°	12818	12043	11894
20°	12578	11643	11435
25°	12281	11188	10955
30°	11979	10778	10471
35°	11639	10345	10081
40°	11314	9950	9665
45°	10955	9570	9328
50°	10600	9193	8959
55°	10206	8807	8622
60°	9823	8413	8278
65°	9431	7994	7871
70°	8841	7521	7451
75°	8094	6982	7022
80°	7229	6441	6531
85°	6419	6036	6206

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.2	2.8
10°-20°	291.5	8.0
20°-30°	435.9	12.0
30°-40°	520.4	14.4
40°-50°	544.5	15.0
50°-60°	511.0	14.1
60°-70°	426.8	11.8
70°-80°	305.2	8.4
80°-90°	181.6	5.0
90°-100°	114.1	3.1
100°-110°	83.9	2.3
110°-120°	56.0	1.5
120°-130°	31.9	0.9
130°-140°	14.3	0.4
140°-150°	3.0	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	829.6	22.9
0°-40°	1350.0	37.3
0°-60°	2405.4	66.4
0°-90°	3319.0	91.6
90°-120°	254.0	7.0
90°-150°	303.3	8.4
90°-180°	303.0	8.4
0°-180°	3622.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1078	1078	1078	1078	1078	
5°	1079	1077	1070	1079	1078	102
15°	1027	1031	1030	1041	1040	289
25°	928	939	943	958	958	428
35°	798	817	832	850	855	499
45°	653	681	710	733	742	503
55°	498	537	579	610	620	446
65°	344	390	442	477	488	340
75°	187	242	301	339	353	199
85°	58	116	178	218	230	59
90°	15	73	133	173	184	11
95°	13	59	116	153	164	10
105°	9	38	88	121	132	9
115°	6	20	62	90	100	6
125°	4	4	38	62	70	4
135°	2	1	14	35	41	2
145°	1	0	0	9	14	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

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1077.8	1077.8	1077.8	1077.8	1077.8
2.5°	1083.7	1080.1	1070.8	1080.1	1079.0
5°	1079.0	1076.6	1069.6	1079.0	1077.8
7.5°	1070.8	1070.8	1063.7	1075.5	1074.3
10°	1059.0	1061.4	1055.5	1067.2	1064.9
12.5°	1044.9	1048.4	1044.9	1055.5	1053.1
15°	1027.3	1030.8	1029.7	1041.4	1040.2
17.5°	1006.2	1013.2	1012.1	1022.6	1020.3
20°	982.7	989.7	992.1	1002.7	1003.8
22.5°	958.0	965.1	968.6	982.7	981.5
25°	927.5	939.3	942.8	958.0	958.0
27.5°	898.2	911.1	918.1	931.0	932.2
30°	866.5	881.7	891.1	905.2	905.2
32.5°	831.2	848.9	861.8	877.0	880.6
35°	798.4	817.2	832.4	850.0	854.7
37.5°	763.1	784.3	801.9	821.9	825.4
40°	727.9	749.1	772.5	792.5	797.2
42.5°	689.2	716.2	740.8	763.1	770.2
45°	652.8	681.0	710.3	732.6	742.0
47.5°	614.0	645.7	678.6	703.3	710.3
50°	576.5	609.3	645.7	672.7	681.0
52.5°	536.6	571.8	612.9	641.0	651.6
55°	497.8	536.6	578.8	610.5	619.9
57.5°	460.2	500.2	545.9	577.6	588.2
60°	420.3	462.6	510.7	543.6	556.5
62.5°	382.7	426.2	477.8	510.7	522.5
65°	344.0	389.8	441.5	476.7	488.4
67.5°	305.3	353.4	405.1	443.8	453.2
70°	264.2	314.7	371.0	408.6	420.3
72.5°	226.6	277.1	335.8	374.5	386.3
75°	186.7	241.9	300.6	339.3	353.4
77.5°	152.6	207.8	266.5	307.6	318.2
80°	116.2	173.8	234.8	274.7	286.5
82.5°	84.5	143.2	205.5	245.4	257.1
85°	57.5	116.2	178.5	218.4	230.1
87.5°	35.2	93.9	153.8	193.7	205.5
90°	15.3	72.8	132.7	172.6	184.3
92.5°	14.1	64.6	123.3	162.0	172.6
95°	12.9	58.7	116.2	152.6	164.4
97.5°	11.7	54.0	109.2	144.4	156.2
100°	10.6	48.1	102.1	136.2	147.9
102.5°	9.4	42.3	95.1	128.0	139.7
105°	9.4	37.6	88.1	120.9	131.5
107.5°	8.2	32.9	81.0	112.7	123.3
110°	7.0	28.2	75.1	105.7	115.1

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	7.0	23.5	68.1	97.4	108.0
115°	5.9	20.0	62.2	90.4	99.8
117.5°	5.9	15.3	55.2	83.4	92.8
120°	4.7	10.6	49.3	76.3	84.5
122.5°	4.7	7.0	43.4	69.3	77.5
125°	3.5	3.5	37.6	62.2	70.4
127.5°	3.5	2.3	31.7	55.2	63.4
130°	3.5	2.3	25.8	48.1	55.2
132.5°	2.3	2.3	20.0	41.1	49.3
135°	2.3	1.2	14.1	35.2	41.1
137.5°	2.3	1.2	9.4	28.2	34.0
140°	1.2	1.2	4.7	22.3	28.2
142.5°	1.2	0.0	0.0	15.3	21.1
145°	1.2	0.0	0.0	9.4	14.1
147.5°	0.0	0.0	0.0	3.5	8.2
150°	0.0	0.0	0.0	0.0	2.3
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)