

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: P242514

Luminaire Tested: **S123DR-S1165D930-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242514
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-S1165D930-X4F0-XX-UDD-D-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3728.0 lumens
Efficiency: N/A
Efficacy: 90.7 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

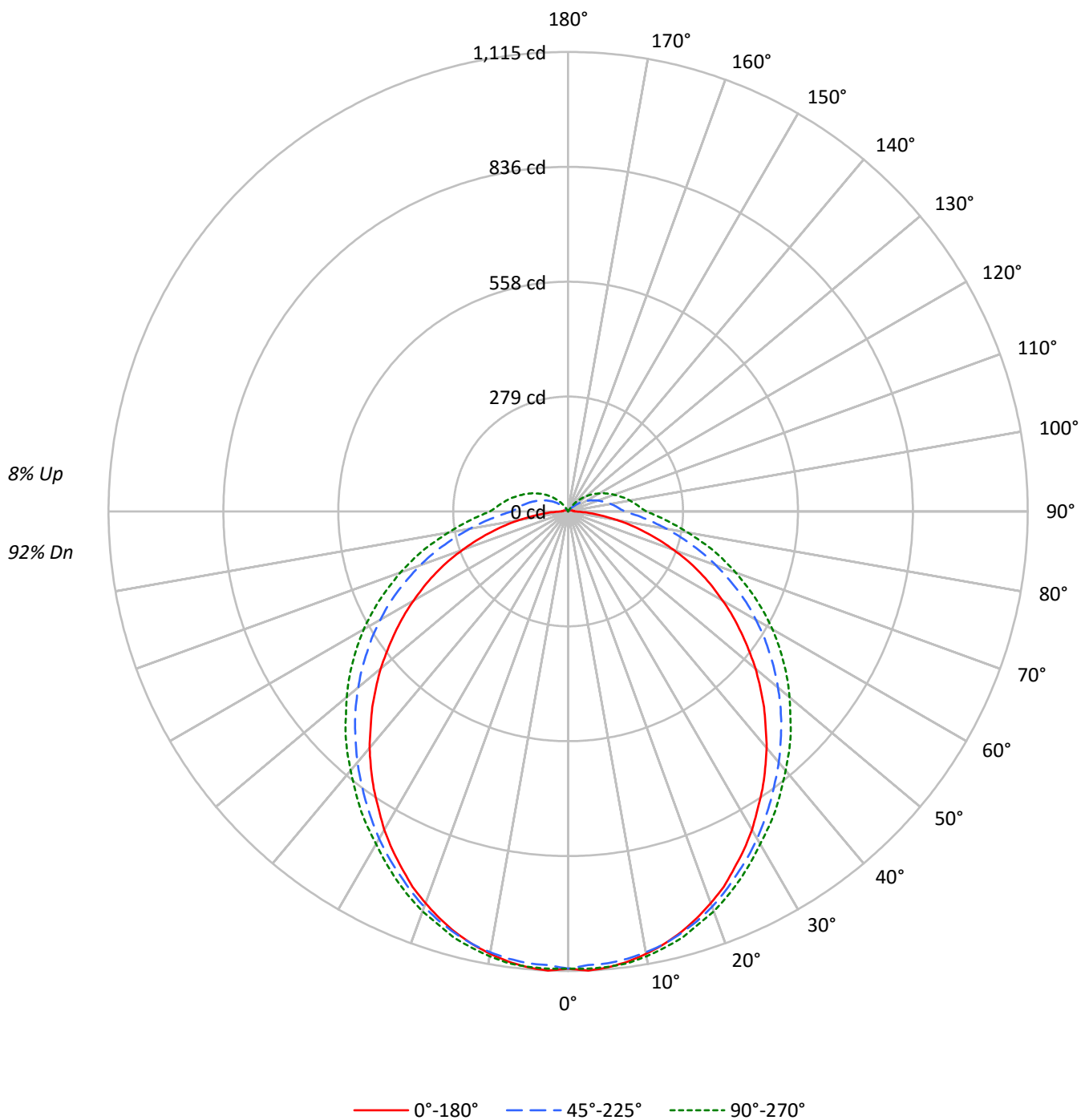
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	13446	13446	13446
5°	13487	13082	13081
10°	13364	12758	12677
15°	13192	12394	12242
20°	12945	11982	11769
25°	12640	11515	11275
30°	12329	11092	10777
35°	11979	10647	10375
40°	11645	10241	9948
45°	11274	9849	9600
50°	10908	9462	9220
55°	10504	9064	8874
60°	10111	8658	8520
65°	9706	8226	8101
70°	9099	7740	7669
75°	8328	7184	7226
80°	7441	6631	6720
85°	6609	6212	6387

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.2	2.8
10°-20°	300.0	8.0
20°-30°	448.6	12.0
30°-40°	535.6	14.4
40°-50°	560.4	15.0
50°-60°	525.9	14.1
60°-70°	439.2	11.8
70°-80°	314.1	8.4
80°-90°	186.9	5.0
90°-100°	117.4	3.2
100°-110°	86.3	2.3
110°-120°	57.6	1.5
120°-130°	32.9	0.9
130°-140°	14.7	0.4
140°-150°	3.1	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	853.8	22.9
0°-40°	1389.4	37.3
0°-60°	2475.6	66.4
0°-90°	3415.8	91.6
90°-120°	261.4	7.0
90°-150°	312.1	8.4
90°-180°	312.0	8.4
0°-180°	3728.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1109	1109	1109	1109	1109	
5°	1110	1108	1101	1110	1109	105
15°	1057	1061	1060	1072	1071	298
25°	955	967	970	986	986	440
35°	822	841	857	875	880	514
45°	672	701	731	754	764	518
55°	512	552	596	628	638	459
65°	354	401	454	491	503	350
75°	192	249	309	349	364	205
85°	59	120	184	225	237	61
90°	16	75	136	178	190	11
95°	13	60	120	157	169	10
105°	10	39	91	124	135	10
115°	6	20	64	93	103	6
125°	4	4	39	64	72	4
135°	2	1	14	36	42	2
145°	1	0	0	10	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°	1109.3	1109.3	1109.3	1109.3	1109.3
2.5°	1115.3	1111.7	1102.0	1111.7	1110.5
5°	1110.5	1108.0	1100.8	1110.5	1109.3
7.5°	1102.0	1102.0	1094.8	1106.8	1105.6
10°	1089.9	1092.3	1086.3	1098.4	1096.0
12.5°	1075.4	1079.0	1075.4	1086.3	1083.9
15°	1057.3	1060.9	1059.7	1071.8	1070.6
17.5°	1035.5	1042.8	1041.6	1052.5	1050.0
20°	1011.4	1018.6	1021.0	1031.9	1033.1
22.5°	986.0	993.3	996.9	1011.4	1010.2
25°	954.6	966.7	970.3	986.0	986.0
27.5°	924.4	937.7	944.9	958.2	959.4
30°	891.8	907.5	917.1	931.6	931.6
32.5°	855.5	873.6	886.9	902.6	906.3
35°	821.7	841.0	856.7	874.8	879.7
37.5°	785.4	807.2	825.3	845.8	849.5
40°	749.2	770.9	795.1	815.6	820.5
42.5°	709.3	737.1	762.5	785.4	792.7
45°	671.8	700.8	731.0	754.0	763.7
47.5°	632.0	664.6	698.4	723.8	731.0
50°	593.3	627.1	664.6	692.4	700.8
52.5°	552.2	588.5	630.8	659.8	670.6
55°	512.3	552.2	595.7	628.3	638.0
57.5°	473.7	514.8	561.9	594.5	605.4
60°	432.6	476.1	525.6	559.5	572.8
62.5°	393.9	438.6	491.8	525.6	537.7
65°	354.0	401.2	454.3	490.6	502.7
67.5°	314.2	363.7	416.9	456.8	466.4
70°	271.9	323.8	381.8	420.5	432.6
72.5°	233.2	285.2	345.6	385.5	397.5
75°	192.1	248.9	309.3	349.2	363.7
77.5°	157.1	213.9	274.3	316.6	327.5
80°	119.6	178.8	241.7	282.8	294.8
82.5°	87.0	147.4	211.5	252.5	264.6
85°	59.2	119.6	183.7	224.8	236.8
87.5°	36.3	96.7	158.3	199.4	211.5
90°	15.7	74.9	136.5	177.6	189.7
92.5°	14.5	66.5	126.9	166.8	177.6
95°	13.3	60.4	119.6	157.1	169.2
97.5°	12.1	55.6	112.4	148.6	160.7
100°	10.9	49.5	105.1	140.2	152.3
102.5°	9.7	43.5	97.9	131.7	143.8
105°	9.7	38.7	90.6	124.5	135.3
107.5°	8.5	33.8	83.4	116.0	126.9
110°	7.3	29.0	77.3	108.8	118.4

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	7.3	24.2	70.1	100.3	111.2
115°	6.0	20.5	64.0	93.0	102.7
117.5°	6.0	15.7	56.8	85.8	95.5
120°	4.8	10.9	50.8	78.5	87.0
122.5°	4.8	7.3	44.7	71.3	79.8
125°	3.6	3.6	38.7	64.0	72.5
127.5°	3.6	2.4	32.6	56.8	65.3
130°	3.6	2.4	26.6	49.5	56.8
132.5°	2.4	2.4	20.5	42.3	50.8
135°	2.4	1.2	14.5	36.3	42.3
137.5°	2.4	1.2	9.7	29.0	35.0
140°	1.2	1.2	4.8	23.0	29.0
142.5°	1.2	0.0	0.0	15.7	21.8
145°	1.2	0.0	0.0	9.7	14.5
147.5°	0.0	0.0	0.0	3.6	8.5
150°	0.0	0.0	0.0	0.0	2.4
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)