

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: P242339

Luminaire Tested: **S122DR-S485D930-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242339
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-14)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DR-S485D930-X4F0-XX-UDD-D-W
Description: DEFINE 2 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: 1541.2 lumens
Efficiency: N/A
Efficacy: 82.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.15' x L: 3.88' x H: 0.08')
CIE Type: Semi-Direct

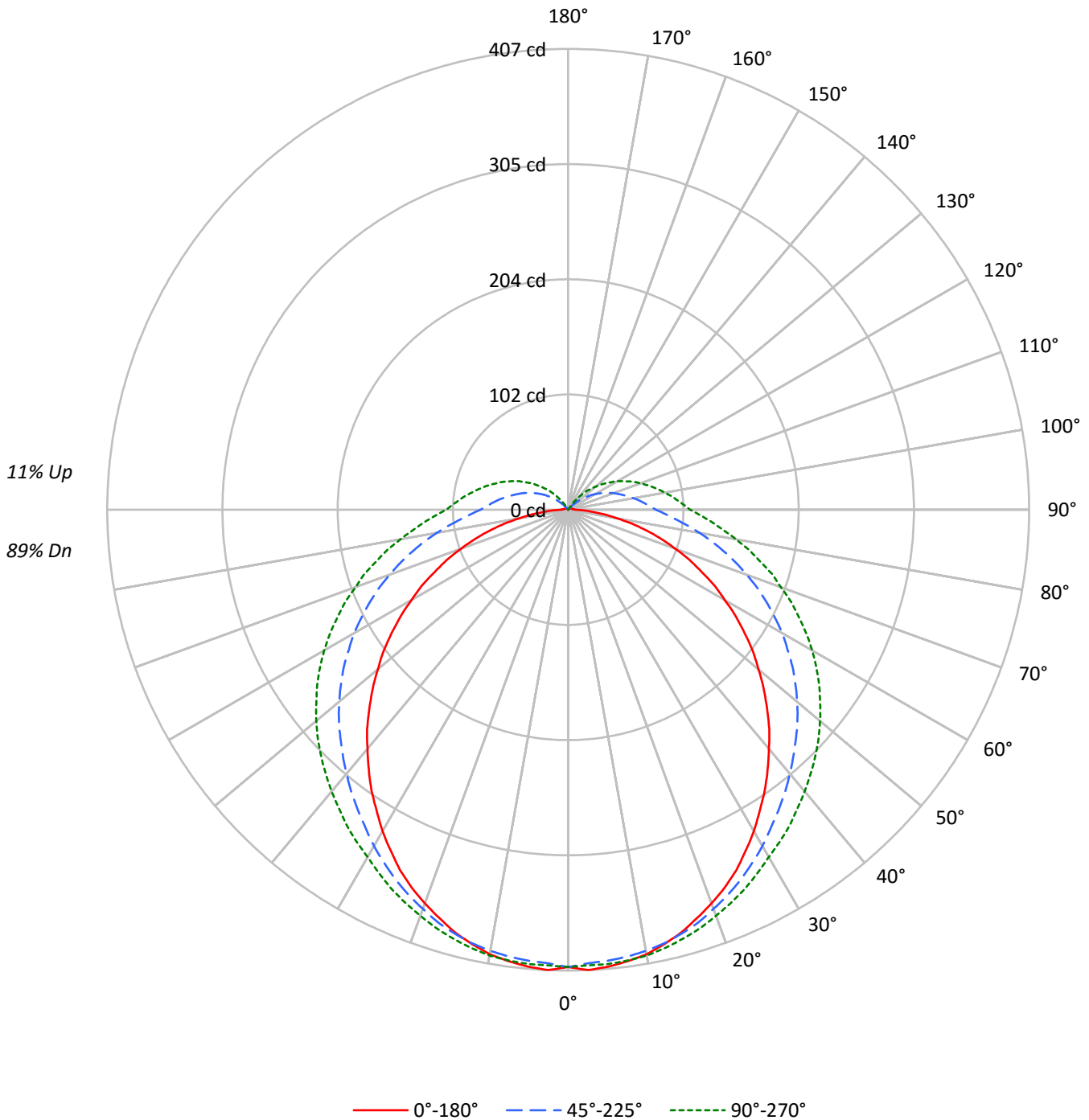
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P242339

CATALOG NUMBER: S122DR-S485D930-X4F0-XX-UDD-D-W

Luminous Intensity Polar Plot





TEST NUMBER: P242339

CATALOG NUMBER: S122DR-S485D930-X4F0-XX-UDD-D-W

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	116	116	116	116	112	112	112	112	105	105	105		98	98	98		92	92	92	89
1	104	98	93	88	100	95	90	86	88	85	81		82	79	77		77	75	72	69
2	94	84	77	70	90	81	74	68	76	70	65		71	66	62		66	62	59	56
3	85	73	64	57	81	71	63	56	66	59	54		62	56	51		58	53	49	46
4	77	64	55	48	74	62	54	47	58	51	45		55	48	43		51	46	42	39
5	71	57	48	41	68	56	47	40	52	44	39		49	42	37		46	40	36	33
6	65	51	42	35	63	50	41	35	47	39	34		44	37	32		42	36	31	29
7	60	46	37	31	58	45	37	31	43	35	30		40	34	29		38	32	28	25
8	56	42	34	28	54	41	33	27	39	32	26		37	30	25		35	29	25	23
9	52	39	30	25	50	38	30	24	36	29	24		34	27	23		32	26	22	20
10	49	36	28	22	47	35	27	22	33	26	21		31	25	21		30	24	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7693	7693	7693
5°	7731	7374	7335
10°	7682	7127	7025
15°	7576	6870	6707
20°	7442	6598	6405
25°	7308	6339	6130
30°	7121	6074	5858
35°	6934	5819	5658
40°	6734	5599	5461
45°	6545	5400	5288
50°	6342	5217	5119
55°	6131	5023	4946
60°	5869	4820	4764
65°	5601	4585	4553
70°	5295	4332	4325
75°	4905	4083	4111
80°	4292	3822	3890
85°	3702	3577	3703



TEST NUMBER: P242339

CATALOG NUMBER: S122DR-S485D930-X4F0-XX-UDD-D-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.3	2.5
10°-20°	109.8	7.1
20°-30°	166.4	10.8
30°-40°	202.6	13.1
40°-50°	218.0	14.1
50°-60°	211.7	13.7
60°-70°	184.9	12.0
70°-80°	142.3	9.2
80°-90°	95.3	6.2
90°-100°	65.8	4.3
100°-110°	48.0	3.1
110°-120°	31.7	2.1
120°-130°	17.7	1.1
130°-140°	7.4	0.5
140°-150°	1.2	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	314.5	20.4
0°-40°	517.1	33.6
0°-60°	946.9	61.4
0°-90°	1369.4	88.9
90°-120°	145.5	9.4
90°-150°	171.8	11.1
90°-180°	172.0	11.2
0°-180°	1541.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	404	404	404	404	404	
5°	405	403	400	403	403	38
15°	386	388	388	393	392	109
25°	351	355	361	368	369	162
35°	303	313	324	337	341	189
45°	248	264	284	303	308	192
55°	190	211	242	263	270	170
65°	130	159	193	217	225	129
75°	72	105	142	167	175	76
85°	21	57	95	119	128	22
90°	6	40	77	101	108	4
95°	5	32	67	90	97	4
105°	3	20	50	71	77	3
115°	2	9	35	53	59	2
125°	1	1	20	36	41	1
135°	1	1	6	19	23	1
145°	0	0	0	4	6	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: P242339

CATALOG NUMBER: S122DR-S485D930-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	403.9	403.9	403.9	403.9	403.9
2.5°	406.9	405.1	401.0	403.9	402.8
5°	405.1	403.3	399.8	403.3	402.8
7.5°	402.2	401.0	398.1	402.2	401.6
10°	398.7	397.5	395.7	400.4	399.8
12.5°	392.8	393.4	392.2	396.9	396.3
15°	386.4	387.5	387.5	392.8	392.2
17.5°	378.2	380.5	382.3	387.5	387.5
20°	370.0	372.9	375.2	381.7	381.7
22.5°	361.2	364.7	368.2	374.7	375.8
25°	351.2	355.3	360.6	367.6	369.4
27.5°	339.5	346.0	351.8	360.6	361.8
30°	327.8	335.4	343.0	352.4	354.2
32.5°	314.9	323.7	333.1	344.2	347.7
35°	302.7	312.6	323.7	336.6	340.7
37.5°	289.2	300.3	314.4	328.4	332.5
40°	275.7	288.6	304.4	319.6	324.9
42.5°	262.8	275.7	294.5	311.4	316.7
45°	248.2	264.0	284.5	302.7	308.5
47.5°	234.2	251.1	274.6	293.3	299.7
50°	219.5	237.7	264.0	283.9	290.4
52.5°	205.5	224.8	252.9	273.4	280.4
55°	190.3	211.3	241.8	262.8	270.5
57.5°	175.6	199.0	229.5	252.3	259.9
60°	159.8	185.0	218.4	240.6	248.8
62.5°	145.8	172.1	205.5	229.5	237.1
65°	130.0	158.6	193.2	217.2	224.8
67.5°	115.9	145.8	180.9	204.9	213.1
70°	100.7	131.1	167.4	192.6	199.6
72.5°	86.6	118.3	155.1	179.7	188.5
75°	72.0	104.8	142.3	167.4	175.0
77.5°	58.0	91.9	130.0	155.1	163.3
80°	43.9	79.6	117.7	142.3	150.4
82.5°	32.2	67.3	106.0	130.5	138.2
85°	21.1	57.4	94.8	119.4	127.6
87.5°	12.9	48.0	85.5	109.5	117.1
90°	5.9	39.8	77.3	100.7	107.7
92.5°	5.3	36.3	72.0	94.8	101.9
95°	4.7	32.2	67.3	89.6	96.6
97.5°	4.1	29.3	63.2	84.9	91.9
100°	4.1	25.8	58.5	80.2	86.6
102.5°	3.5	22.8	54.4	75.5	82.0
105°	2.9	19.9	50.3	70.8	77.3
107.5°	2.9	17.0	46.2	66.2	72.6
110°	2.3	14.0	42.7	61.5	67.9



TEST NUMBER: P242339

CATALOG NUMBER: S122DR-S485D930-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.3	11.7	38.6	57.4	63.8
115°	2.3	8.8	35.1	52.7	59.1
117.5°	1.8	6.4	31.0	48.6	54.4
120°	1.8	4.1	27.5	43.9	50.3
122.5°	1.8	2.3	24.0	39.8	45.1
125°	1.2	1.2	19.9	35.7	41.0
127.5°	1.2	0.6	16.4	31.0	36.3
130°	1.2	0.6	12.9	26.9	31.6
132.5°	1.2	0.6	9.4	22.8	27.5
135°	0.6	0.6	6.4	18.7	23.4
137.5°	0.6	0.6	3.5	14.6	18.7
140°	0.6	0.0	1.2	10.5	14.0
142.5°	0.6	0.0	0.0	7.0	10.0
145°	0.0	0.0	0.0	3.5	6.4
147.5°	0.0	0.0	0.0	0.6	2.3
150°	0.0	0.0	0.0	0.0	0.0
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)