

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: P242320

Luminaire Tested: **S122DR-S485D927-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242320
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-S485D927-X4F0-XX-UDD-D-W
Description: DEFINE 2 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: 1497.5 lumens
Efficiency: N/A
Efficacy: 79.7 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

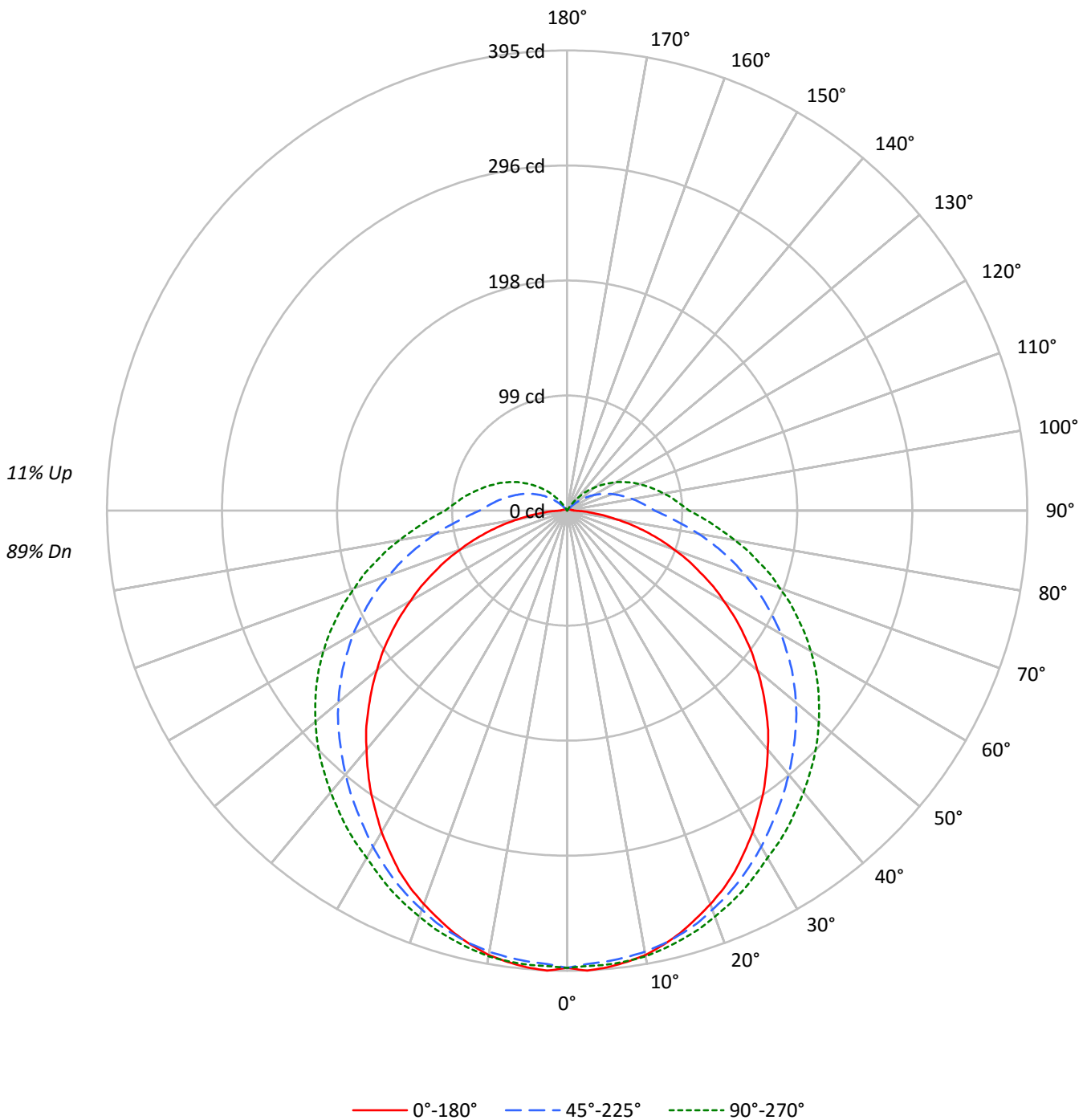
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	7476	7476	7476
5°	7512	7165	7126
10°	7465	6925	6826
15°	7360	6676	6517
20°	7231	6412	6224
25°	7102	6160	5956
30°	6919	5902	5691
35°	6737	5655	5497
40°	6543	5441	5306
45°	6361	5246	5139
50°	6163	5068	4973
55°	5957	4879	4806
60°	5704	4683	4628
65°	5441	4455	4423
70°	5143	4211	4204
75°	4769	3966	3996
80°	4175	3712	3782
85°	3596	3475	3598



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.2	2.5
10°-20°	106.7	7.1
20°-30°	161.7	10.8
30°-40°	196.9	13.1
40°-50°	211.8	14.1
50°-60°	205.7	13.7
60°-70°	179.7	12.0
70°-80°	138.3	9.2
80°-90°	92.6	6.2
90°-100°	63.9	4.3
100°-110°	46.7	3.1
110°-120°	30.8	2.1
120°-130°	17.2	1.1
130°-140°	7.2	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°	305.6	20.4
0°-40°	502.5	33.6
0°-60°	920.1	61.4
0°-90°	1330.6	88.9
90°-120°	141.3	9.4
90°-150°	166.9	11.1
90°-180°	167.0	11.2
0°-180°	1497.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	392	392	392	392	392	
5°	394	392	388	392	391	37
15°	375	377	377	382	381	106
25°	341	345	350	357	359	157
35°	294	304	315	327	331	184
45°	241	256	276	294	300	186
55°	185	205	235	255	263	165
65°	126	154	188	211	218	125
75°	70	102	138	163	170	74
85°	20	56	92	116	124	22
90°	6	39	75	98	105	4
95°	5	31	65	87	94	4
105°	3	19	49	69	75	3
115°	2	8	34	51	57	2
125°	1	1	19	35	40	1
135°	1	1	6	18	23	1
145°	0	0	0	3	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



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	392.5	392.5	392.5	392.5	392.5
2.5°	395.3	393.6	389.6	392.5	391.3
5°	393.6	391.9	388.5	391.9	391.3
7.5°	390.8	389.6	386.8	390.8	390.2
10°	387.4	386.2	384.5	389.1	388.5
12.5°	381.7	382.2	381.1	385.7	385.1
15°	375.4	376.6	376.6	381.7	381.1
17.5°	367.4	369.7	371.4	376.6	376.6
20°	359.5	362.3	364.6	370.9	370.9
22.5°	351.0	354.4	357.8	364.0	365.2
25°	341.3	345.3	350.4	357.2	358.9
27.5°	329.9	336.2	341.9	350.4	351.5
30°	318.5	325.9	333.3	342.4	344.1
32.5°	306.0	314.6	323.7	334.5	337.9
35°	294.1	303.7	314.6	327.1	331.0
37.5°	281.0	291.8	305.4	319.1	323.1
40°	267.9	280.4	295.8	310.6	315.7
42.5°	255.4	267.9	286.1	302.6	307.7
45°	241.2	256.5	276.4	294.1	299.8
47.5°	227.5	244.0	266.8	285.0	291.2
50°	213.3	230.9	256.5	275.9	282.1
52.5°	199.7	218.4	245.7	265.6	272.5
55°	184.9	205.3	234.9	255.4	262.8
57.5°	170.6	193.4	223.0	245.2	252.6
60°	155.3	179.7	212.2	233.8	241.7
62.5°	141.6	167.2	199.7	223.0	230.4
65°	126.3	154.1	187.7	211.0	218.4
67.5°	112.6	141.6	175.8	199.1	207.0
70°	97.8	127.4	162.7	187.1	194.0
72.5°	84.2	114.9	150.7	174.6	183.2
75°	70.0	101.8	138.2	162.7	170.1
77.5°	56.3	89.3	126.3	150.7	158.7
80°	42.7	77.4	114.3	138.2	146.2
82.5°	31.3	65.4	103.0	126.8	134.2
85°	20.5	55.7	92.1	116.0	124.0
87.5°	12.5	46.6	83.0	106.4	113.8
90°	5.7	38.7	75.1	97.8	104.7
92.5°	5.1	35.3	70.0	92.1	99.0
95°	4.6	31.3	65.4	87.0	93.9
97.5°	4.0	28.4	61.4	82.5	89.3
100°	4.0	25.0	56.9	77.9	84.2
102.5°	3.4	22.2	52.9	73.4	79.6
105°	2.8	19.3	48.9	68.8	75.1
107.5°	2.8	16.5	44.9	64.3	70.5
110°	2.3	13.7	41.5	59.7	66.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.3	11.4	37.5	55.7	62.0
115°	2.3	8.5	34.1	51.2	57.4
117.5°	1.7	6.3	30.1	47.2	52.9
120°	1.7	4.0	26.7	42.7	48.9
122.5°	1.7	2.3	23.3	38.7	43.8
125°	1.1	1.1	19.3	34.7	39.8
127.5°	1.1	0.6	15.9	30.1	35.3
130°	1.1	0.6	12.5	26.2	30.7
132.5°	1.1	0.6	9.1	22.2	26.7
135°	0.6	0.6	6.3	18.2	22.8
137.5°	0.6	0.6	3.4	14.2	18.2
140°	0.6	0.0	1.1	10.2	13.7
142.5°	0.6	0.0	0.0	6.8	9.7
145°	0.0	0.0	0.0	3.4	6.3
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)