

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: P242345

Luminaire Tested: **S122DR-S675D935-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242345
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-S675D935-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2266.9 lumens
Efficiency: N/A
Efficacy: 85.9 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

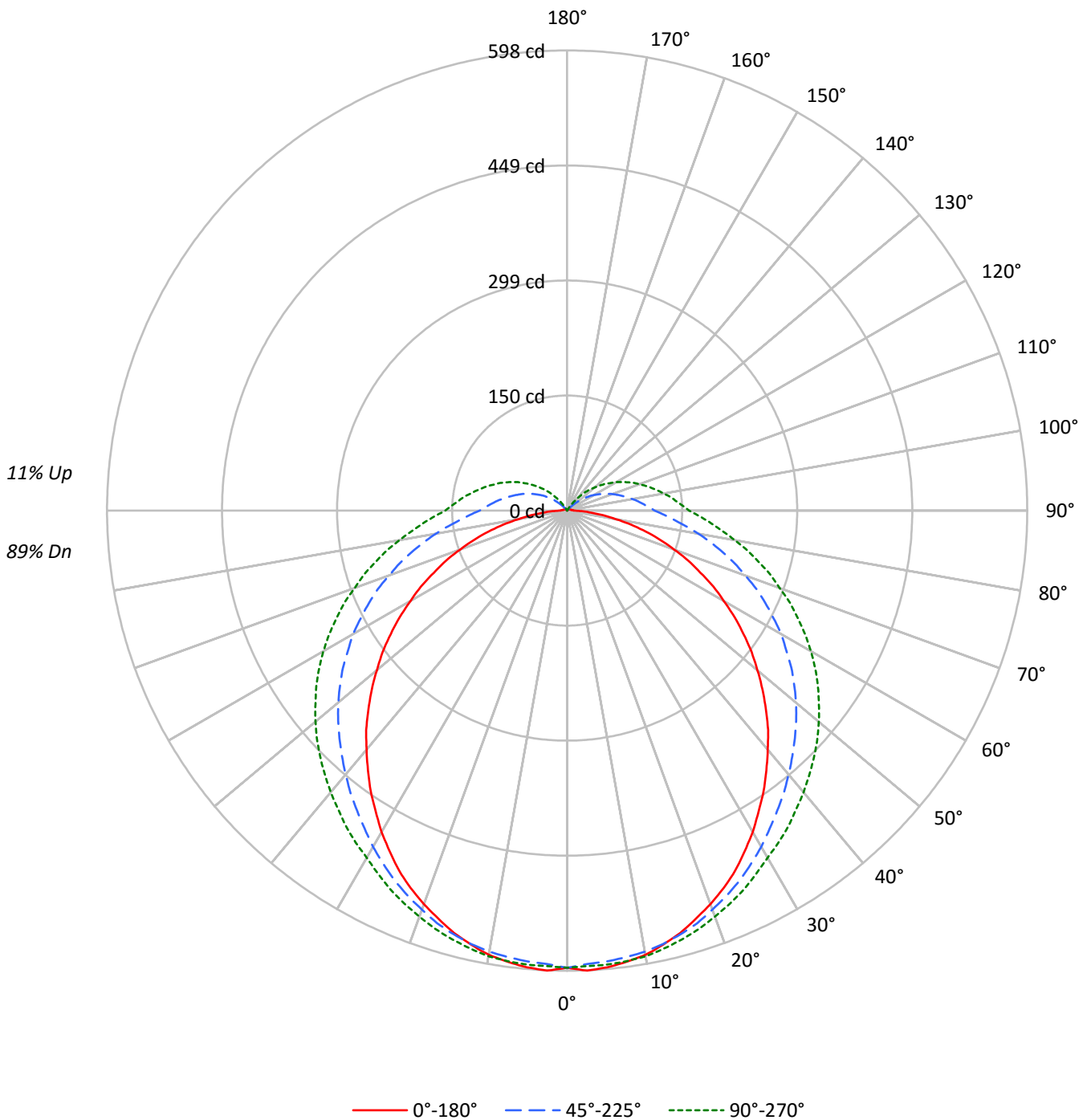
Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P242345

CATALOG NUMBER: S122DR-S675D935-X4F0-XX-UDD-D-W

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°	11316	11316	11316
5°	11371	10847	10788
10°	11297	10482	10334
15°	11142	10105	9866
20°	10945	9706	9420
25°	10749	9324	9016
30°	10476	8934	8615
35°	10196	8558	8322
40°	9904	8235	8032
45°	9628	7941	7777
50°	9329	7673	7529
55°	9015	7386	7274
60°	8635	7089	7006
65°	8233	6742	6696
70°	7788	6372	6362
75°	7215	6003	6047
80°	6316	5621	5724
85°	5438	5264	5447



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.3	2.5
10°-20°	161.5	7.1
20°-30°	244.7	10.8
30°-40°	298.0	13.1
40°-50°	320.7	14.1
50°-60°	311.4	13.7
60°-70°	271.9	12.0
70°-80°	209.3	9.2
80°-90°	140.2	6.2
90°-100°	96.7	4.3
100°-110°	70.6	3.1
110°-120°	46.6	2.1
120°-130°	26.0	1.1
130°-140°	10.9	0.5
140°-150°	1.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	462.6	20.4
0°-40°	760.6	33.6
0°-60°	1392.7	61.4
0°-90°	2014.1	88.9
90°-120°	214.0	9.4
90°-150°	252.7	11.1
90°-180°	253.0	11.2
0°-180°	2266.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	594	594	594	594	594	
5°	596	593	588	593	592	57
15°	568	570	570	578	577	160
25°	517	523	530	541	543	238
35°	445	460	476	495	501	278
45°	365	388	418	445	454	282
55°	280	311	356	387	398	250
65°	191	233	284	319	331	190
75°	106	154	209	246	257	112
85°	31	84	140	176	188	33
90°	9	58	114	148	158	6
95°	7	47	99	132	142	5
105°	4	29	74	104	114	5
115°	3	13	52	78	87	3
125°	2	2	29	52	60	2
135°	1	1	10	28	34	1
145°	0	0	0	5	10	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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CATALOG NUMBER: S122DR-S675D935-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	594.1	594.1	594.1	594.1	594.1
2.5°	598.4	595.8	589.8	594.1	592.4
5°	595.8	593.2	588.1	593.2	592.4
7.5°	591.5	589.8	585.5	591.5	590.6
10°	586.3	584.6	582.0	588.9	588.1
12.5°	577.7	578.6	576.9	583.8	582.9
15°	568.3	570.0	570.0	577.7	576.9
17.5°	556.2	559.7	562.2	570.0	570.0
20°	544.2	548.5	551.9	561.4	561.4
22.5°	531.2	536.4	541.6	551.0	552.8
25°	516.6	522.6	530.4	540.7	543.3
27.5°	499.4	508.9	517.5	530.4	532.1
30°	482.2	493.4	504.5	518.3	520.9
32.5°	463.2	476.1	489.9	506.3	511.4
35°	445.1	459.8	476.1	495.1	501.1
37.5°	425.3	441.7	462.4	483.0	489.0
40°	405.5	424.5	447.7	470.1	477.9
42.5°	386.6	405.5	433.1	458.1	465.8
45°	365.1	388.3	418.4	445.1	453.7
47.5°	344.4	369.4	403.8	431.4	440.8
50°	322.9	349.6	388.3	417.6	427.1
52.5°	302.2	330.6	372.0	402.1	412.4
55°	279.8	310.8	355.6	386.6	397.8
57.5°	258.3	292.7	337.5	371.1	382.3
60°	235.1	272.1	321.2	353.9	365.9
62.5°	214.4	253.1	302.2	337.5	348.7
65°	191.1	233.3	284.1	319.4	330.6
67.5°	170.5	214.4	266.0	301.4	313.4
70°	148.1	192.9	246.2	283.3	293.6
72.5°	127.4	173.9	228.2	264.3	277.2
75°	105.9	154.1	209.2	246.2	257.4
77.5°	85.2	135.2	191.1	228.2	240.2
80°	64.6	117.1	173.1	209.2	221.3
82.5°	47.4	99.0	155.8	192.0	203.2
85°	31.0	84.4	139.5	175.6	187.7
87.5°	18.9	70.6	125.7	161.0	172.2
90°	8.6	58.5	113.7	148.1	158.4
92.5°	7.7	53.4	105.9	139.5	149.8
95°	6.9	47.4	99.0	131.7	142.1
97.5°	6.0	43.1	93.0	124.8	135.2
100°	6.0	37.9	86.1	118.0	127.4
102.5°	5.2	33.6	80.1	111.1	120.5
105°	4.3	29.3	74.0	104.2	113.7
107.5°	4.3	25.0	68.0	97.3	106.8
110°	3.4	20.7	62.9	90.4	99.9



TEST NUMBER: P242345

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.4	17.2	56.8	84.4	93.8
115°	3.4	12.9	51.7	77.5	87.0
117.5°	2.6	9.5	45.6	71.5	80.1
120°	2.6	6.0	40.5	64.6	74.0
122.5°	2.6	3.4	35.3	58.5	66.3
125°	1.7	1.7	29.3	52.5	60.3
127.5°	1.7	0.9	24.1	45.6	53.4
130°	1.7	0.9	18.9	39.6	46.5
132.5°	1.7	0.9	13.8	33.6	40.5
135°	0.9	0.9	9.5	27.6	34.4
137.5°	0.9	0.9	5.2	21.5	27.6
140°	0.9	0.0	1.7	15.5	20.7
142.5°	0.9	0.0	0.0	10.3	14.6
145°	0.0	0.0	0.0	5.2	9.5
147.5°	0.0	0.0	0.0	0.9	3.4
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)