

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: P242340

Luminaire Tested: **S122DR-S675D930-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242340
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-S675D930-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: 2146.5 lumens
Efficiency: N/A
Efficacy: 81.3 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

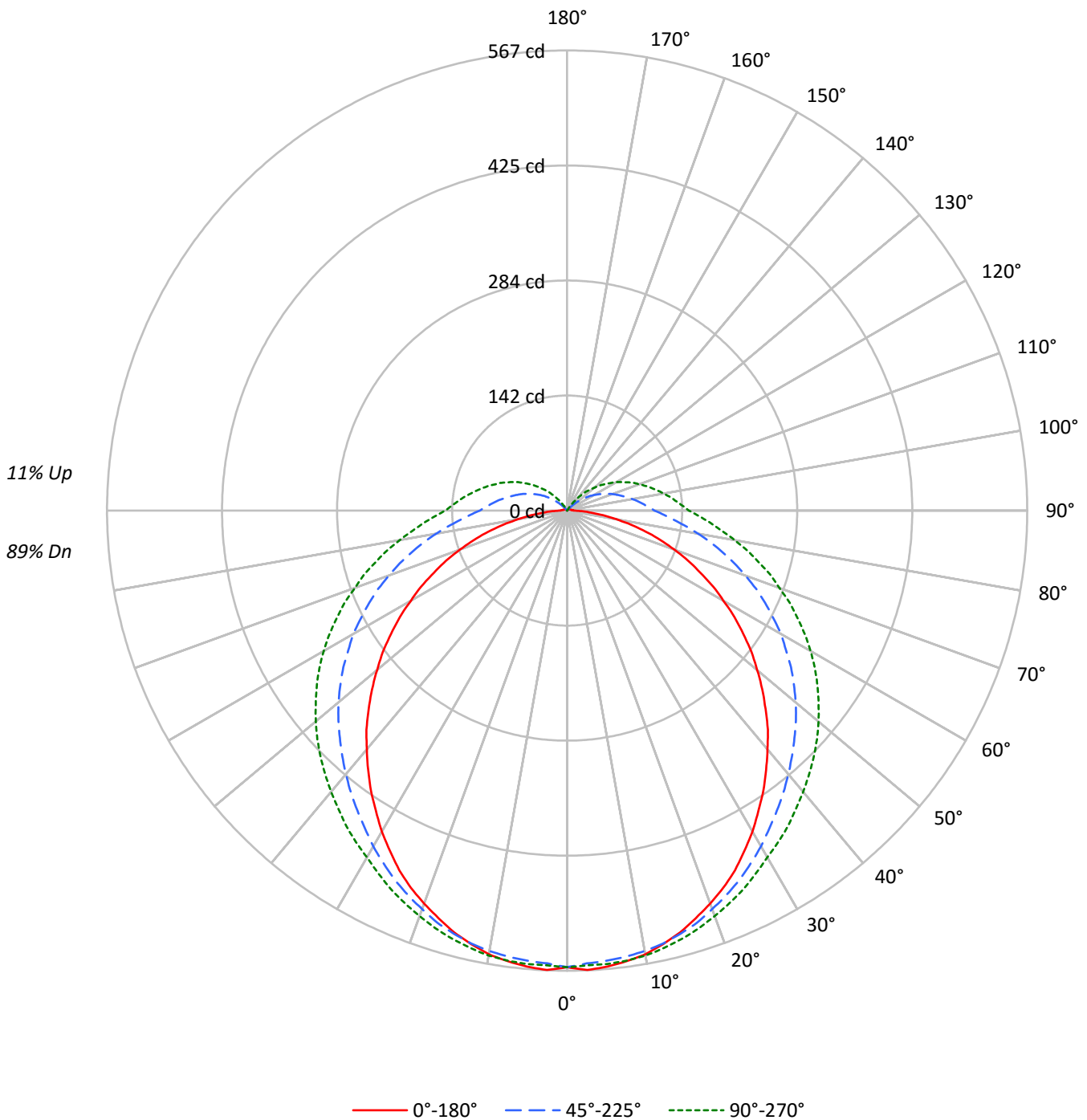
Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	10716	10716	10716
5°	10768	10270	10214
10°	10698	9925	9784
15°	10550	9568	9342
20°	10364	9191	8920
25°	10179	8829	8538
30°	9919	8461	8158
35°	9656	8105	7881
40°	9379	7799	7605
45°	9116	7520	7366
50°	8832	7266	7129
55°	8538	6994	6888
60°	8176	6711	6634
65°	7798	6384	6341
70°	7372	6035	6024
75°	6833	5685	5728
80°	5974	5323	5419
85°	5158	4984	5157



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.3	2.5
10°-20°	153.0	7.1
20°-30°	231.8	10.8
30°-40°	282.2	13.1
40°-50°	303.6	14.1
50°-60°	294.9	13.7
60°-70°	257.5	12.0
70°-80°	198.2	9.2
80°-90°	132.7	6.2
90°-100°	91.6	4.3
100°-110°	66.9	3.1
110°-120°	44.2	2.1
120°-130°	24.6	1.1
130°-140°	10.3	0.5
140°-150°	1.7	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	438.0	20.4
0°-40°	720.3	33.6
0°-60°	1318.8	61.4
0°-90°	1907.2	88.9
90°-120°	202.6	9.4
90°-150°	239.3	11.1
90°-180°	239.0	11.1
0°-180°	2146.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	563	563	563	563	563	
5°	564	562	557	562	561	54
15°	538	540	540	547	546	152
25°	489	495	502	512	514	225
35°	422	435	451	469	474	263
45°	346	368	396	422	430	267
55°	265	294	337	366	377	237
65°	181	221	269	302	313	180
75°	100	146	198	233	244	106
85°	29	80	132	166	178	31
90°	8	55	108	140	150	6
95°	6	45	94	125	134	5
105°	4	28	70	99	108	5
115°	3	12	49	73	82	3
125°	2	2	28	50	57	2
135°	1	1	9	26	33	1
145°	0	0	0	5	9	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°	562.6	562.6	562.6	562.6	562.6
2.5°	566.6	564.2	558.5	562.6	560.9
5°	564.2	561.7	556.8	561.7	560.9
7.5°	560.1	558.5	554.4	560.1	559.3
10°	555.2	553.6	551.1	557.7	556.8
12.5°	547.1	547.9	546.3	552.8	552.0
15°	538.1	539.7	539.7	547.1	546.3
17.5°	526.7	529.9	532.4	539.7	539.7
20°	515.3	519.3	522.6	531.6	531.6
22.5°	503.0	507.9	512.8	521.8	523.4
25°	489.2	494.9	502.2	512.0	514.5
27.5°	472.9	481.8	490.0	502.2	503.9
30°	456.6	467.2	477.8	490.8	493.3
32.5°	438.6	450.9	463.9	479.4	484.3
35°	421.5	435.4	450.9	468.8	474.5
37.5°	402.8	418.2	437.8	457.4	463.1
40°	384.0	401.9	424.0	445.2	452.5
42.5°	366.1	384.0	410.1	433.7	441.1
45°	345.7	367.7	396.2	421.5	429.7
47.5°	326.1	349.8	382.4	408.5	417.4
50°	305.7	331.0	367.7	395.4	404.4
52.5°	286.2	313.1	352.2	380.7	390.5
55°	265.0	294.3	336.7	366.1	376.7
57.5°	244.6	277.2	319.6	351.4	362.0
60°	222.6	257.6	304.1	335.1	346.5
62.5°	203.0	239.7	286.2	319.6	330.2
65°	181.0	220.9	269.0	302.5	313.1
67.5°	161.4	203.0	251.9	285.4	296.8
70°	140.2	182.6	233.2	268.2	278.0
72.5°	120.7	164.7	216.1	250.3	262.5
75°	100.3	145.9	198.1	233.2	243.8
77.5°	80.7	128.0	181.0	216.1	227.5
80°	61.1	110.9	163.9	198.1	209.5
82.5°	44.8	93.8	147.6	181.8	192.4
85°	29.4	79.9	132.1	166.3	177.7
87.5°	17.9	66.9	119.0	152.5	163.1
90°	8.2	55.4	107.6	140.2	150.0
92.5°	7.3	50.5	100.3	132.1	141.9
95°	6.5	44.8	93.8	124.7	134.5
97.5°	5.7	40.8	88.1	118.2	128.0
100°	5.7	35.9	81.5	111.7	120.7
102.5°	4.9	31.8	75.8	105.2	114.1
105°	4.1	27.7	70.1	98.7	107.6
107.5°	4.1	23.6	64.4	92.1	101.1
110°	3.3	19.6	59.5	85.6	94.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.3	16.3	53.8	79.9	88.9
115°	3.3	12.2	48.9	73.4	82.3
117.5°	2.4	9.0	43.2	67.7	75.8
120°	2.4	5.7	38.3	61.1	70.1
122.5°	2.4	3.3	33.4	55.4	62.8
125°	1.6	1.6	27.7	49.7	57.1
127.5°	1.6	0.8	22.8	43.2	50.5
130°	1.6	0.8	17.9	37.5	44.0
132.5°	1.6	0.8	13.0	31.8	38.3
135°	0.8	0.8	9.0	26.1	32.6
137.5°	0.8	0.8	4.9	20.4	26.1
140°	0.8	0.0	1.6	14.7	19.6
142.5°	0.8	0.0	0.0	9.8	13.9
145°	0.0	0.0	0.0	4.9	9.0
147.5°	0.0	0.0	0.0	0.8	3.3
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)