

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: P242326

Luminaire Tested: **S122DR-S675D830-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242326
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-S675D830-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2481.5 lumens
Efficiency: N/A
Efficacy: 94.0 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

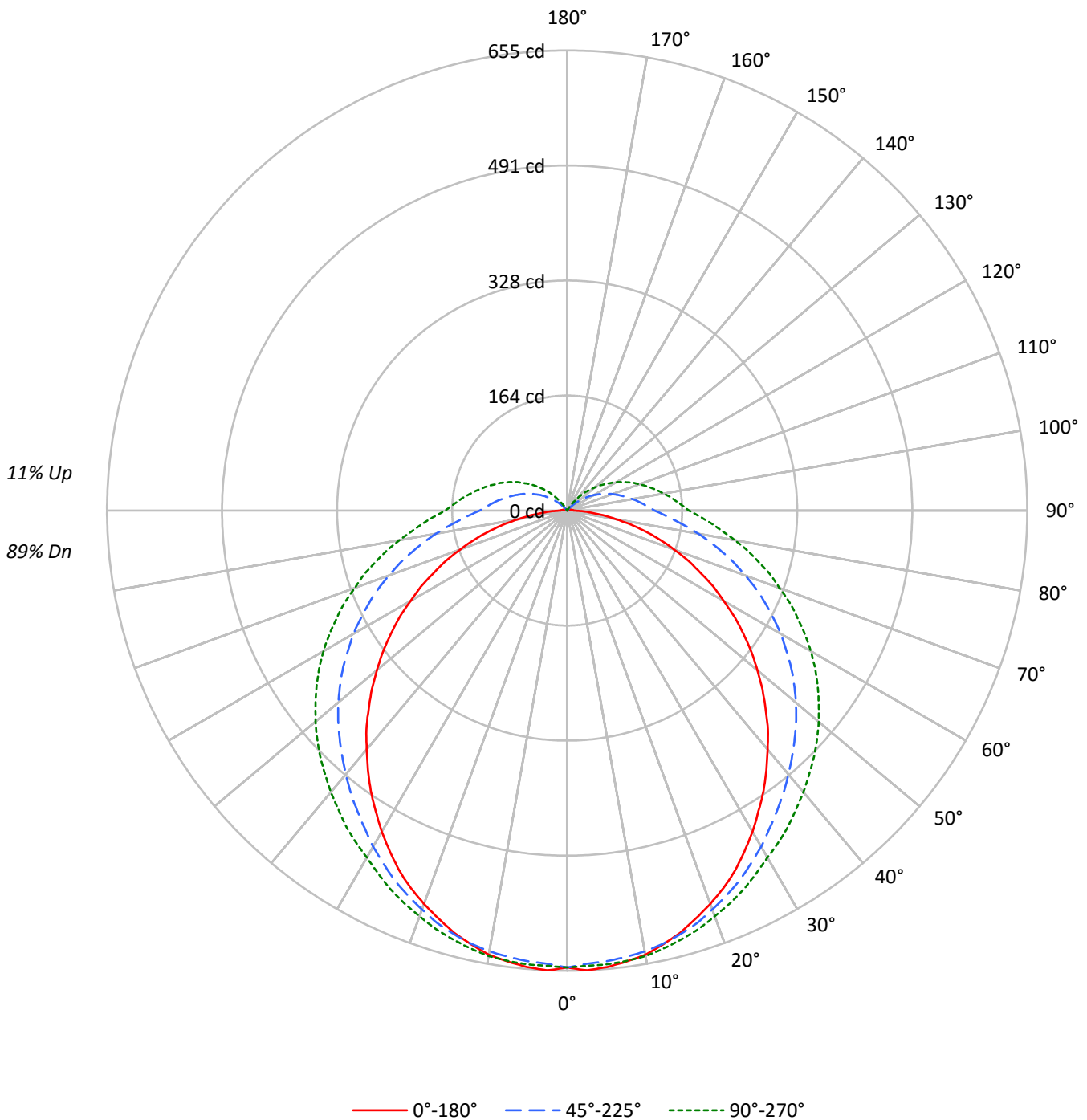
Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	12389	12389	12389
5°	12447	11874	11809
10°	12368	11476	11312
15°	12197	11062	10799
20°	11981	10626	10311
25°	11767	10207	9869
30°	11466	9780	9430
35°	11163	9369	9111
40°	10842	9015	8792
45°	10538	8695	8515
50°	10214	8400	8241
55°	9869	8086	7964
60°	9450	7760	7670
65°	9013	7381	7330
70°	8524	6977	6965
75°	7896	6571	6621
80°	6912	6154	6265
85°	5947	5762	5963



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.7	2.5
10°-20°	176.8	7.1
20°-30°	267.9	10.8
30°-40°	326.3	13.1
40°-50°	351.0	14.1
50°-60°	340.9	13.7
60°-70°	297.7	12.0
70°-80°	229.1	9.2
80°-90°	153.5	6.2
90°-100°	105.9	4.3
100°-110°	77.3	3.1
110°-120°	51.1	2.1
120°-130°	28.4	1.1
130°-140°	11.9	0.5
140°-150°	2.0	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	506.4	20.4
0°-40°	832.7	33.6
0°-60°	1524.6	61.4
0°-90°	2204.9	88.9
90°-120°	234.3	9.4
90°-150°	276.7	11.1
90°-180°	277.0	11.2
0°-180°	2481.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	650	650	650	650	650	
5°	652	649	644	649	648	62
15°	622	624	624	632	632	175
25°	566	572	581	592	595	260
35°	487	503	521	542	549	305
45°	400	425	458	487	497	309
55°	306	340	389	423	436	274
65°	209	255	311	350	362	208
75°	116	169	229	270	282	123
85°	34	92	153	192	206	36
90°	9	64	124	162	173	7
95°	8	52	108	144	156	6
105°	5	32	81	114	124	5
115°	4	14	57	85	95	3
125°	2	2	32	58	66	2
135°	1	1	10	30	38	1
145°	0	0	0	6	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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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	650.4	650.4	650.4	650.4	650.4
2.5°	655.1	652.2	645.6	650.4	648.5
5°	652.2	649.4	643.8	649.4	648.5
7.5°	647.5	645.6	640.9	647.5	646.6
10°	641.9	640.0	637.2	644.7	643.8
12.5°	632.4	633.4	631.5	639.0	638.1
15°	622.1	624.0	624.0	632.4	631.5
17.5°	608.9	612.7	615.5	624.0	624.0
20°	595.7	600.4	604.2	614.5	614.5
22.5°	581.5	587.2	592.9	603.2	605.1
25°	565.5	572.1	580.6	591.9	594.7
27.5°	546.7	557.0	566.5	580.6	582.5
30°	527.8	540.1	552.3	567.4	570.2
32.5°	507.1	521.2	536.3	554.2	559.9
35°	487.3	503.3	521.2	542.0	548.6
37.5°	465.6	483.5	506.1	528.8	535.4
40°	443.9	464.7	490.1	514.6	523.1
42.5°	423.2	443.9	474.1	501.4	509.9
45°	399.6	425.1	458.1	487.3	496.7
47.5°	377.0	404.4	442.1	472.2	482.6
50°	353.5	382.7	425.1	457.1	467.5
52.5°	330.8	361.9	407.2	440.2	451.5
55°	306.3	340.3	389.3	423.2	435.5
57.5°	282.8	320.5	369.5	406.2	418.5
60°	257.3	297.8	351.6	387.4	400.6
62.5°	234.7	277.1	330.8	369.5	381.7
65°	209.2	255.4	311.0	349.7	361.9
67.5°	186.6	234.7	291.2	329.9	343.1
70°	162.1	211.1	269.6	310.1	321.4
72.5°	139.5	190.4	249.8	289.4	303.5
75°	115.9	168.7	229.0	269.6	281.8
77.5°	93.3	148.0	209.2	249.8	263.0
80°	70.7	128.2	189.5	229.0	242.2
82.5°	51.8	108.4	170.6	210.2	222.4
85°	33.9	92.4	152.7	192.3	205.5
87.5°	20.7	77.3	137.6	176.3	188.5
90°	9.4	64.1	124.4	162.1	173.4
92.5°	8.5	58.4	115.9	152.7	164.0
95°	7.5	51.8	108.4	144.2	155.5
97.5°	6.6	47.1	101.8	136.7	148.0
100°	6.6	41.5	94.3	129.1	139.5
102.5°	5.7	36.8	87.7	121.6	132.0
105°	4.7	32.0	81.1	114.0	124.4
107.5°	4.7	27.3	74.5	106.5	116.9
110°	3.8	22.6	68.8	99.0	109.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.8	18.9	62.2	92.4	102.7
115°	3.8	14.1	56.6	84.8	95.2
117.5°	2.8	10.4	50.0	78.2	87.7
120°	2.8	6.6	44.3	70.7	81.1
122.5°	2.8	3.8	38.6	64.1	72.6
125°	1.9	1.9	32.0	57.5	66.0
127.5°	1.9	0.9	26.4	50.0	58.4
130°	1.9	0.9	20.7	43.4	50.9
132.5°	1.9	0.9	15.1	36.8	44.3
135°	0.9	0.9	10.4	30.2	37.7
137.5°	0.9	0.9	5.7	23.6	30.2
140°	0.9	0.0	1.9	17.0	22.6
142.5°	0.9	0.0	0.0	11.3	16.0
145°	0.0	0.0	0.0	5.7	10.4
147.5°	0.0	0.0	0.0	0.9	3.8
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)