

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: P242335

Luminaire Tested: **S122DR-S675D840-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242335
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-S675D840-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2658.8 lumens
Efficiency: N/A
Efficacy: 100.7 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

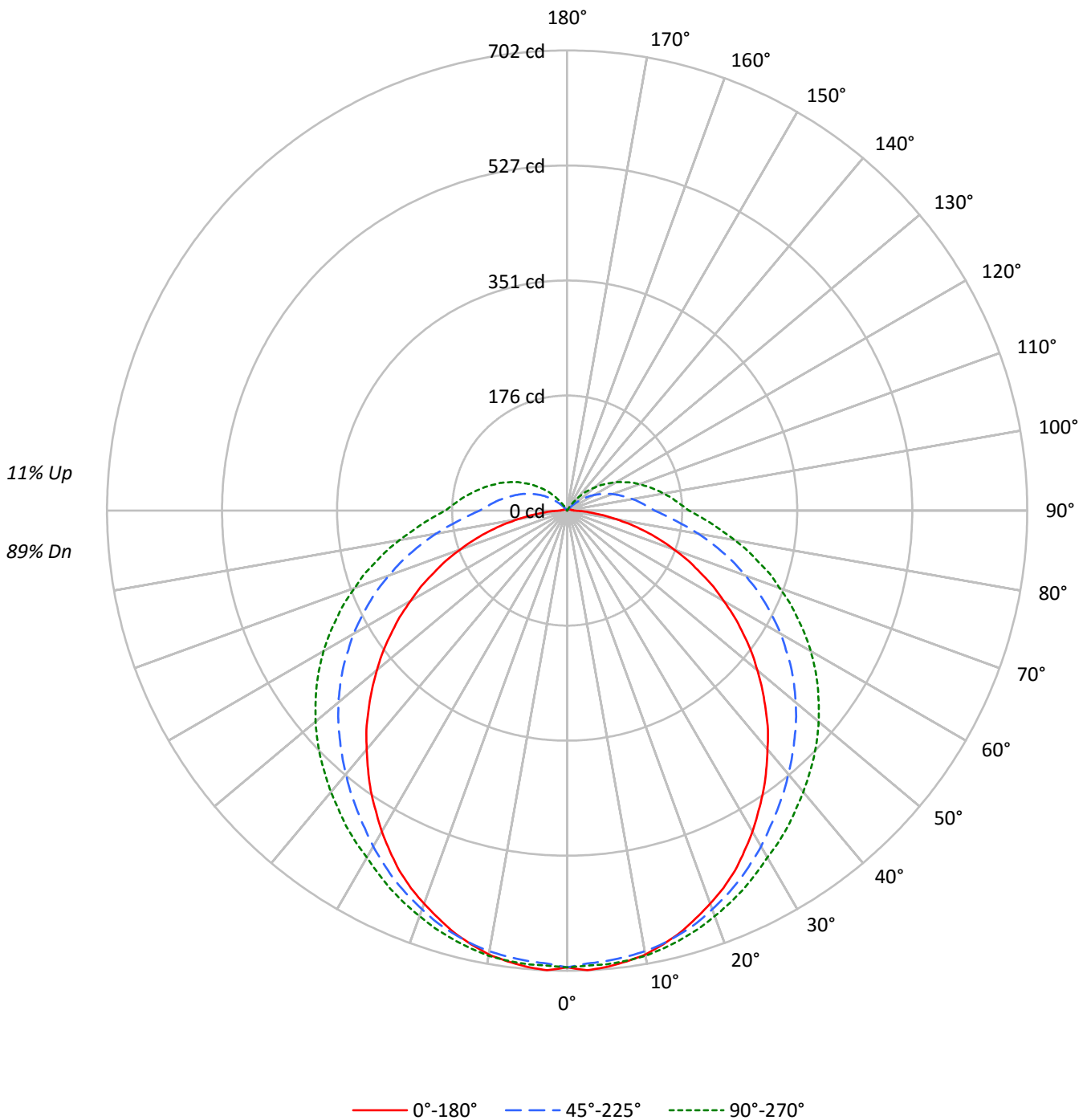
Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	13272	13272	13272
5°	13336	12721	12652
10°	13251	12296	12119
15°	13068	11851	11571
20°	12836	11384	11048
25°	12608	10936	10574
30°	12285	10480	10105
35°	11960	10040	9761
40°	11616	9659	9420
45°	11292	9315	9123
50°	10942	8999	8830
55°	10574	8664	8532
60°	10126	8314	8218
65°	9659	7910	7854
70°	9134	7474	7463
75°	8461	7042	7093
80°	7401	6592	6712
85°	6386	6173	6390



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.1	2.5
10°-20°	189.4	7.1
20°-30°	287.1	10.8
30°-40°	349.6	13.1
40°-50°	376.1	14.1
50°-60°	365.3	13.7
60°-70°	319.0	12.0
70°-80°	245.5	9.2
80°-90°	164.4	6.2
90°-100°	113.4	4.3
100°-110°	82.8	3.1
110°-120°	54.7	2.1
120°-130°	30.5	1.1
130°-140°	12.8	0.5
140°-150°	2.2	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	542.6	20.4
0°-40°	892.1	33.6
0°-60°	1633.5	61.4
0°-90°	2362.4	88.9
90°-120°	251.0	9.4
90°-150°	296.4	11.1
90°-180°	296.0	11.1
0°-180°	2658.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	697	697	697	697	697	
5°	699	696	690	696	695	66
15°	666	668	668	678	677	188
25°	606	613	622	634	637	279
35°	522	539	558	581	588	326
45°	428	455	491	522	532	331
55°	328	365	417	453	467	294
65°	224	274	333	375	388	223
75°	124	181	245	289	302	131
85°	36	99	164	206	220	38
90°	10	69	133	174	186	7
95°	8	56	116	154	167	6
105°	5	34	87	122	133	6
115°	4	15	61	91	102	4
125°	2	2	34	62	71	2
135°	1	1	11	32	40	1
145°	0	0	0	6	11	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°	696.8	696.8	696.8	696.8	696.8
2.5°	701.9	698.8	691.8	696.8	694.8
5°	698.8	695.8	689.7	695.8	694.8
7.5°	693.8	691.8	686.7	693.8	692.8
10°	687.7	685.7	682.7	690.7	689.7
12.5°	677.6	678.6	676.6	684.7	683.7
15°	666.5	668.5	668.5	677.6	676.6
17.5°	652.4	656.4	659.4	668.5	668.5
20°	638.2	643.3	647.3	658.4	658.4
22.5°	623.1	629.1	635.2	646.3	648.3
25°	605.9	613.0	622.1	634.2	637.2
27.5°	585.7	596.8	606.9	622.1	624.1
30°	565.5	578.7	591.8	607.9	611.0
32.5°	543.3	558.5	574.6	593.8	599.9
35°	522.1	539.3	558.5	580.7	587.7
37.5°	498.9	518.1	542.3	566.5	573.6
40°	475.6	497.9	525.1	551.4	560.5
42.5°	453.4	475.6	508.0	537.2	546.3
45°	428.2	455.4	490.8	522.1	532.2
47.5°	403.9	433.2	473.6	505.9	517.1
50°	378.7	410.0	455.4	489.8	500.9
52.5°	354.5	387.8	436.3	471.6	483.7
55°	328.2	364.6	417.1	453.4	466.6
57.5°	303.0	343.4	395.9	435.3	448.4
60°	275.7	319.1	376.7	415.1	429.2
62.5°	251.5	296.9	354.5	395.9	409.0
65°	224.2	273.7	333.3	374.7	387.8
67.5°	200.0	251.5	312.0	353.5	367.6
70°	173.7	226.2	288.8	332.2	344.4
72.5°	149.5	204.0	267.6	310.0	325.2
75°	124.2	180.8	245.4	288.8	301.9
77.5°	100.0	158.5	224.2	267.6	281.8
80°	75.7	137.3	203.0	245.4	259.5
82.5°	55.5	116.1	182.8	225.2	238.3
85°	36.4	99.0	163.6	206.0	220.2
87.5°	22.2	82.8	147.4	188.8	202.0
90°	10.1	68.7	133.3	173.7	185.8
92.5°	9.1	62.6	124.2	163.6	175.7
95°	8.1	55.5	116.1	154.5	166.6
97.5°	7.1	50.5	109.1	146.4	158.5
100°	7.1	44.4	101.0	138.4	149.5
102.5°	6.1	39.4	93.9	130.3	141.4
105°	5.0	34.3	86.8	122.2	133.3
107.5°	5.0	29.3	79.8	114.1	125.2
110°	4.0	24.2	73.7	106.0	117.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.0	20.2	66.7	99.0	110.1
115°	4.0	15.1	60.6	90.9	102.0
117.5°	3.0	11.1	53.5	83.8	93.9
120°	3.0	7.1	47.5	75.7	86.8
122.5°	3.0	4.0	41.4	68.7	77.8
125°	2.0	2.0	34.3	61.6	70.7
127.5°	2.0	1.0	28.3	53.5	62.6
130°	2.0	1.0	22.2	46.5	54.5
132.5°	2.0	1.0	16.2	39.4	47.5
135°	1.0	1.0	11.1	32.3	40.4
137.5°	1.0	1.0	6.1	25.2	32.3
140°	1.0	0.0	2.0	18.2	24.2
142.5°	1.0	0.0	0.0	12.1	17.2
145°	0.0	0.0	0.0	6.1	11.1
147.5°	0.0	0.0	0.0	1.0	4.0
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)