

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: P243186

Luminaire Tested: **S122DR-H675D830-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243186
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-53)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DR-H675D830-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2424.6 lumens
Efficiency: N/A
Efficacy: 102.7 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

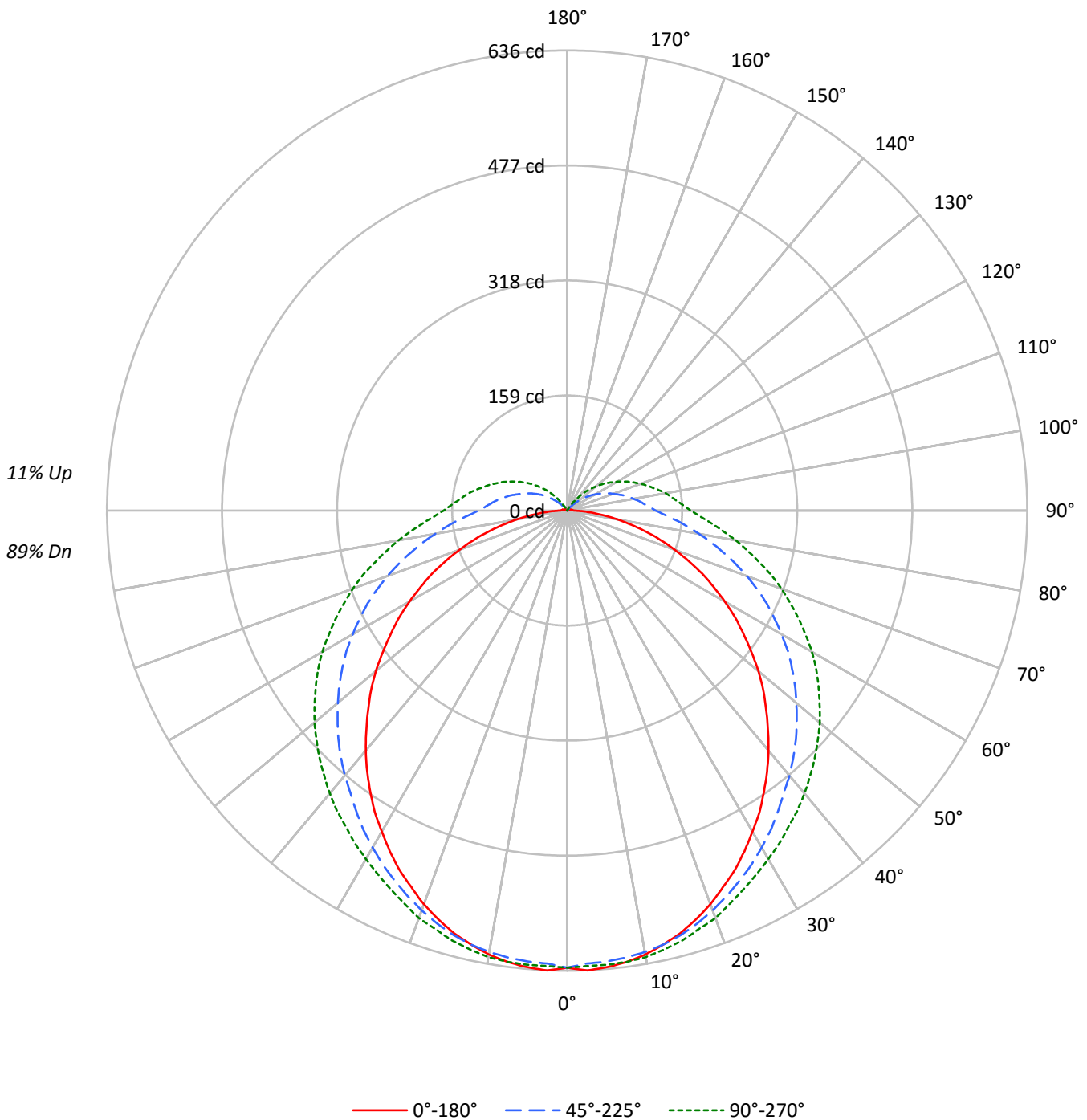
Input Watts (W): 23.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	84	81	82	79	76	77	74	72	69
2	93	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	41	39
5	71	57	48	41	68	55	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	41	36	31	29
7	60	46	37	31	58	45	37	30	42	35	29	40	33	28	38	32	28	25
8	56	42	33	27	54	41	33	27	39	31	26	37	30	25	35	29	25	22
9	52	39	30	25	50	38	30	24	36	28	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°	12036	12036	12036
5°	12092	11540	11474
10°	12006	11157	11010
15°	11854	10765	10519
20°	11647	10339	10056
25°	11409	9917	9580
30°	11127	9522	9199
35°	10865	9128	8857
40°	10576	8791	8578
45°	10258	8486	8297
50°	9968	8173	8037
55°	9585	7879	7757
60°	9244	7554	7480
65°	8871	7227	7147
70°	8329	6832	6828
75°	7732	6413	6451
80°	6883	6001	6123
85°	6017	5679	5798



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.9	2.5
10°-20°	172.0	7.1
20°-30°	260.5	10.7
30°-40°	317.8	13.1
40°-50°	342.0	14.1
50°-60°	332.5	13.7
60°-70°	290.7	12.0
70°-80°	223.8	9.2
80°-90°	150.4	6.2
90°-100°	104.1	4.3
100°-110°	76.5	3.2
110°-120°	50.9	2.1
120°-130°	28.8	1.2
130°-140°	12.4	0.5
140°-150°	2.3	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	492.5	20.3
0°-40°	810.3	33.4
0°-60°	1484.7	61.2
0°-90°	2149.6	88.7
90°-120°	231.5	9.5
90°-150°	275.1	11.3
90°-180°	275.0	11.3
0°-180°	2424.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	632	632	632	632	632	
5°	634	631	626	631	630	60
15°	605	607	607	615	615	170
25°	548	557	564	576	577	252
35°	474	490	508	527	533	297
45°	389	413	447	474	484	301
55°	298	333	379	414	424	267
65°	206	250	304	342	353	203
75°	114	165	224	263	275	120
85°	34	91	150	188	200	35
90°	10	63	122	159	171	7
95°	7	51	106	142	152	6
105°	5	32	81	113	122	6
115°	4	15	56	84	94	3
125°	3	2	33	57	66	2
135°	1	1	11	31	39	1
145°	1	0	0	7	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°	631.9	631.9	631.9	631.9	631.9
2.5°	636.3	633.6	626.6	631.9	630.1
5°	633.6	631.0	625.7	631.0	630.1
7.5°	629.2	627.5	623.1	630.1	629.2
10°	623.1	622.2	619.5	626.6	626.6
12.5°	614.3	615.1	614.3	622.2	621.3
15°	604.6	607.2	607.2	615.1	615.1
17.5°	592.3	596.7	598.4	607.2	606.3
20°	579.1	584.3	587.9	597.5	599.3
22.5°	563.2	571.1	576.4	587.0	587.9
25°	548.3	557.1	564.1	576.4	577.3
27.5°	530.7	541.2	551.8	564.1	566.7
30°	512.2	525.4	537.7	552.7	556.2
32.5°	494.6	507.8	523.6	539.5	545.6
35°	474.3	490.2	507.8	527.1	533.3
37.5°	454.1	470.8	491.9	514.8	522.7
40°	433.0	452.3	477.9	502.5	510.4
42.5°	411.0	432.1	462.9	488.4	497.2
45°	389.0	412.7	447.1	474.3	484.0
47.5°	367.9	393.4	430.3	461.1	469.9
50°	345.0	373.1	413.6	445.3	455.9
52.5°	321.2	352.9	396.9	429.5	440.0
55°	297.5	332.7	379.3	413.6	424.2
57.5°	275.5	312.4	361.7	396.0	408.3
60°	251.7	291.3	342.3	378.4	390.7
62.5°	227.9	271.1	323.0	359.9	371.4
65°	205.9	249.9	304.5	341.5	352.9
67.5°	181.3	227.9	284.3	323.0	333.5
70°	158.4	207.7	264.0	302.7	315.1
72.5°	135.5	185.7	243.8	282.5	295.7
75°	113.5	165.4	223.5	263.1	274.6
77.5°	90.6	145.2	204.2	243.8	255.2
80°	70.4	125.0	184.8	224.4	236.7
82.5°	50.2	106.5	167.2	205.9	217.4
85°	34.3	90.6	150.5	188.3	199.8
87.5°	20.2	75.7	134.6	172.5	183.9
90°	9.7	63.4	122.3	159.3	170.7
92.5°	7.9	57.2	113.5	149.6	161.0
95°	7.0	51.0	106.5	141.7	152.2
97.5°	7.0	46.6	100.3	134.6	145.2
100°	6.2	41.4	93.3	126.7	138.2
102.5°	6.2	36.1	87.1	119.7	130.2
105°	5.3	31.7	81.0	112.6	122.3
107.5°	4.4	27.3	73.9	105.6	115.3
110°	4.4	22.9	67.8	98.6	108.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.5	19.4	62.5	91.5	101.2
115°	3.5	15.0	56.3	84.5	94.2
117.5°	3.5	10.6	50.2	77.4	87.1
120°	2.6	7.0	44.9	71.3	80.1
122.5°	2.6	4.4	38.7	64.2	73.0
125°	2.6	1.8	33.4	57.2	66.0
127.5°	1.8	1.8	27.3	51.0	59.0
130°	1.8	0.9	22.0	44.0	51.9
132.5°	1.8	0.9	16.7	37.8	44.9
135°	0.9	0.9	11.4	30.8	38.7
137.5°	0.9	0.9	6.2	24.6	30.8
140°	0.9	0.0	2.6	18.5	23.8
142.5°	0.9	0.0	0.0	12.3	17.6
145°	0.9	0.0	0.0	7.0	10.6
147.5°	0.0	0.0	0.0	1.8	5.3
150°	0.0	0.0	0.0	0.0	0.9
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)