

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: P243210

Luminaire Tested: **S122DR-H675D940-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243210
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-H675D940-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2293.9 lumens
Efficiency: N/A
Efficacy: 97.2 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

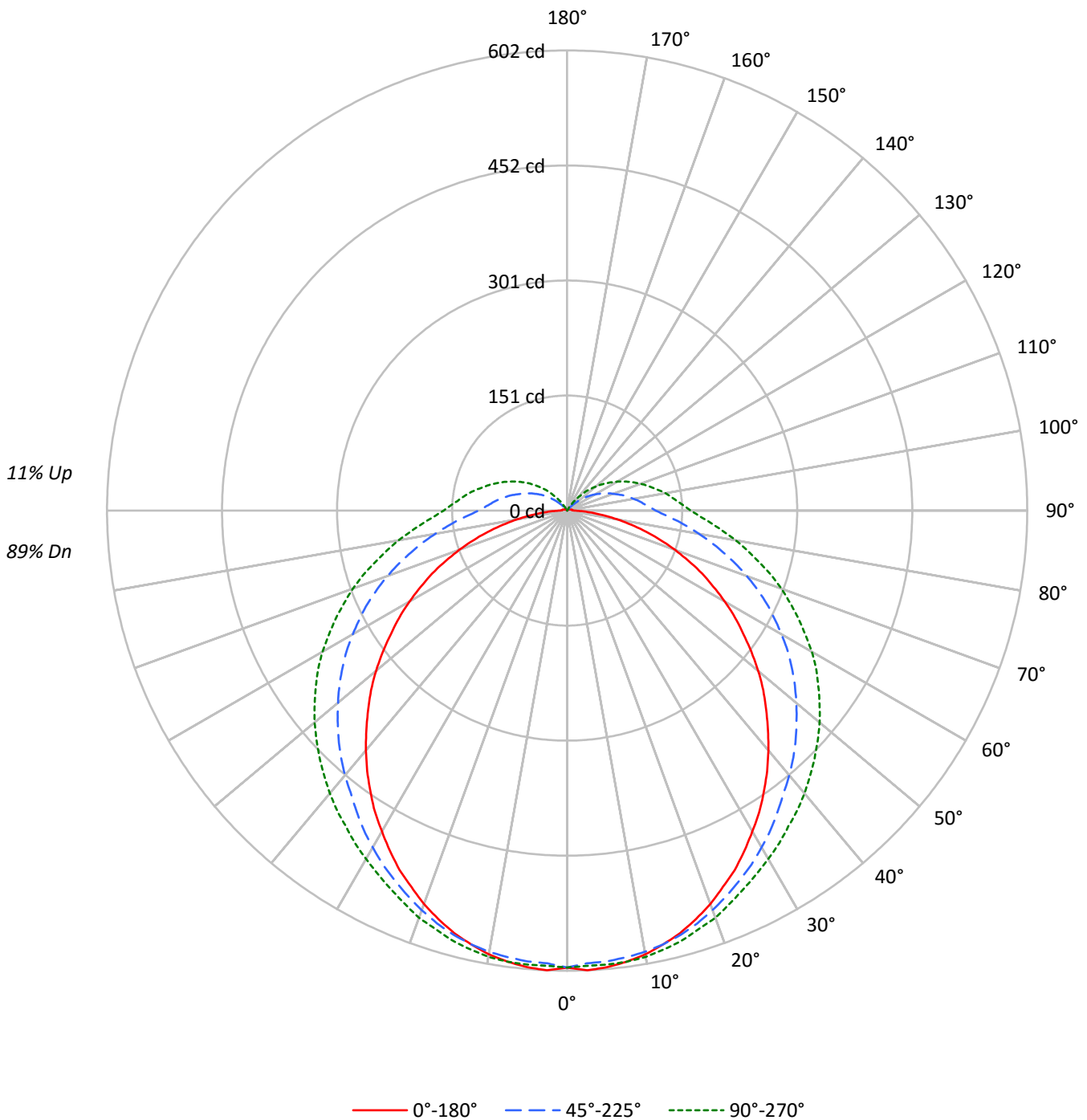
Input Watts (W): 23.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	11387	11387	11387
5°	11441	10919	10855
10°	11359	10556	10416
15°	11215	10185	9953
20°	11018	9782	9514
25°	10793	9382	9064
30°	10528	9008	8702
35°	10281	8636	8379
40°	10004	8316	8116
45°	9704	8027	7849
50°	9431	7732	7603
55°	9066	7453	7338
60°	8745	7148	7078
65°	8393	6837	6762
70°	7882	6465	6460
75°	7317	6069	6104
80°	6511	5677	5794
85°	5701	5373	5485



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.7	2.5
10°-20°	162.7	7.1
20°-30°	246.5	10.7
30°-40°	300.6	13.1
40°-50°	323.6	14.1
50°-60°	314.6	13.7
60°-70°	275.0	12.0
70°-80°	211.7	9.2
80°-90°	142.3	6.2
90°-100°	98.5	4.3
100°-110°	72.4	3.2
110°-120°	48.2	2.1
120°-130°	27.3	1.2
130°-140°	11.7	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°	465.9	20.3
0°-40°	766.6	33.4
0°-60°	1404.7	61.2
0°-90°	2033.7	88.7
90°-120°	219.0	9.5
90°-150°	260.2	11.3
90°-180°	260.0	11.3
0°-180°	2293.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	600	597	592	597	596	57
15°	572	574	574	582	582	161
25°	519	527	534	545	546	239
35°	449	464	480	499	504	281
45°	368	390	423	449	458	284
55°	281	315	359	391	401	252
65°	195	236	288	323	334	192
75°	107	156	212	249	260	113
85°	32	86	142	178	189	33
90°	9	60	116	151	162	6
95°	7	48	101	134	144	5
105°	5	30	77	107	116	5
115°	3	14	53	80	89	3
125°	2	2	32	54	62	2
135°	1	1	11	29	37	1
145°	1	0	0	7	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-H675D940-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	597.8	597.8	597.8	597.8	597.8
2.5°	602.0	599.5	592.8	597.8	596.1
5°	599.5	597.0	592.0	597.0	596.1
7.5°	595.3	593.6	589.5	596.1	595.3
10°	589.5	588.6	586.1	592.8	592.8
12.5°	581.1	582.0	581.1	588.6	587.8
15°	572.0	574.5	574.5	582.0	582.0
17.5°	560.3	564.5	566.2	574.5	573.6
20°	547.8	552.8	556.2	565.3	567.0
22.5°	532.8	540.3	545.3	555.3	556.2
25°	518.7	527.0	533.7	545.3	546.2
27.5°	502.0	512.0	522.0	533.7	536.2
30°	484.6	497.0	508.7	522.9	526.2
32.5°	467.9	480.4	495.4	510.4	516.2
35°	448.8	463.7	480.4	498.7	504.5
37.5°	429.6	445.4	465.4	487.1	494.5
40°	409.6	427.9	452.1	475.4	482.9
42.5°	388.8	408.8	437.9	462.1	470.4
45°	368.0	390.5	422.9	448.8	457.9
47.5°	348.0	372.2	407.1	436.3	444.6
50°	326.4	353.0	391.3	421.3	431.3
52.5°	303.9	333.9	375.5	406.3	416.3
55°	281.4	314.7	358.8	391.3	401.3
57.5°	260.6	295.6	342.2	374.7	386.3
60°	238.1	275.6	323.9	358.0	369.7
62.5°	215.6	256.4	305.6	340.5	351.3
65°	194.8	236.5	288.1	323.0	333.9
67.5°	171.5	215.6	268.9	305.6	315.5
70°	149.9	196.5	249.8	286.4	298.1
72.5°	128.2	175.7	230.6	267.3	279.7
75°	107.4	156.5	211.5	248.9	259.8
77.5°	85.8	137.4	193.2	230.6	241.4
80°	66.6	118.2	174.8	212.3	224.0
82.5°	47.5	100.7	158.2	194.8	205.6
85°	32.5	85.8	142.4	178.2	189.0
87.5°	19.1	71.6	127.4	163.2	174.0
90°	9.2	59.9	115.7	150.7	161.5
92.5°	7.5	54.1	107.4	141.5	152.4
95°	6.7	48.3	100.7	134.0	144.0
97.5°	6.7	44.1	94.9	127.4	137.4
100°	5.8	39.1	88.3	119.9	130.7
102.5°	5.8	34.1	82.4	113.2	123.2
105°	5.0	30.0	76.6	106.6	115.7
107.5°	4.2	25.8	69.9	99.9	109.1
110°	4.2	21.6	64.1	93.2	102.4



TEST NUMBER: P243210

CATALOG NUMBER: S122DR-H675D940-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.3	18.3	59.1	86.6	95.7
115°	3.3	14.2	53.3	79.9	89.1
117.5°	3.3	10.0	47.5	73.3	82.4
120°	2.5	6.7	42.5	67.4	75.8
122.5°	2.5	4.2	36.6	60.8	69.1
125°	2.5	1.7	31.6	54.1	62.4
127.5°	1.7	1.7	25.8	48.3	55.8
130°	1.7	0.8	20.8	41.6	49.1
132.5°	1.7	0.8	15.8	35.8	42.5
135°	0.8	0.8	10.8	29.1	36.6
137.5°	0.8	0.8	5.8	23.3	29.1
140°	0.8	0.0	2.5	17.5	22.5
142.5°	0.8	0.0	0.0	11.7	16.7
145°	0.8	0.0	0.0	6.7	10.0
147.5°	0.0	0.0	0.0	1.7	5.0
150°	0.0	0.0	0.0	0.0	0.8
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)