

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: P243200

Luminaire Tested: **S122DR-H675D930-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243200
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-H675D930-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2097.4 lumens
Efficiency: N/A
Efficacy: 88.9 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

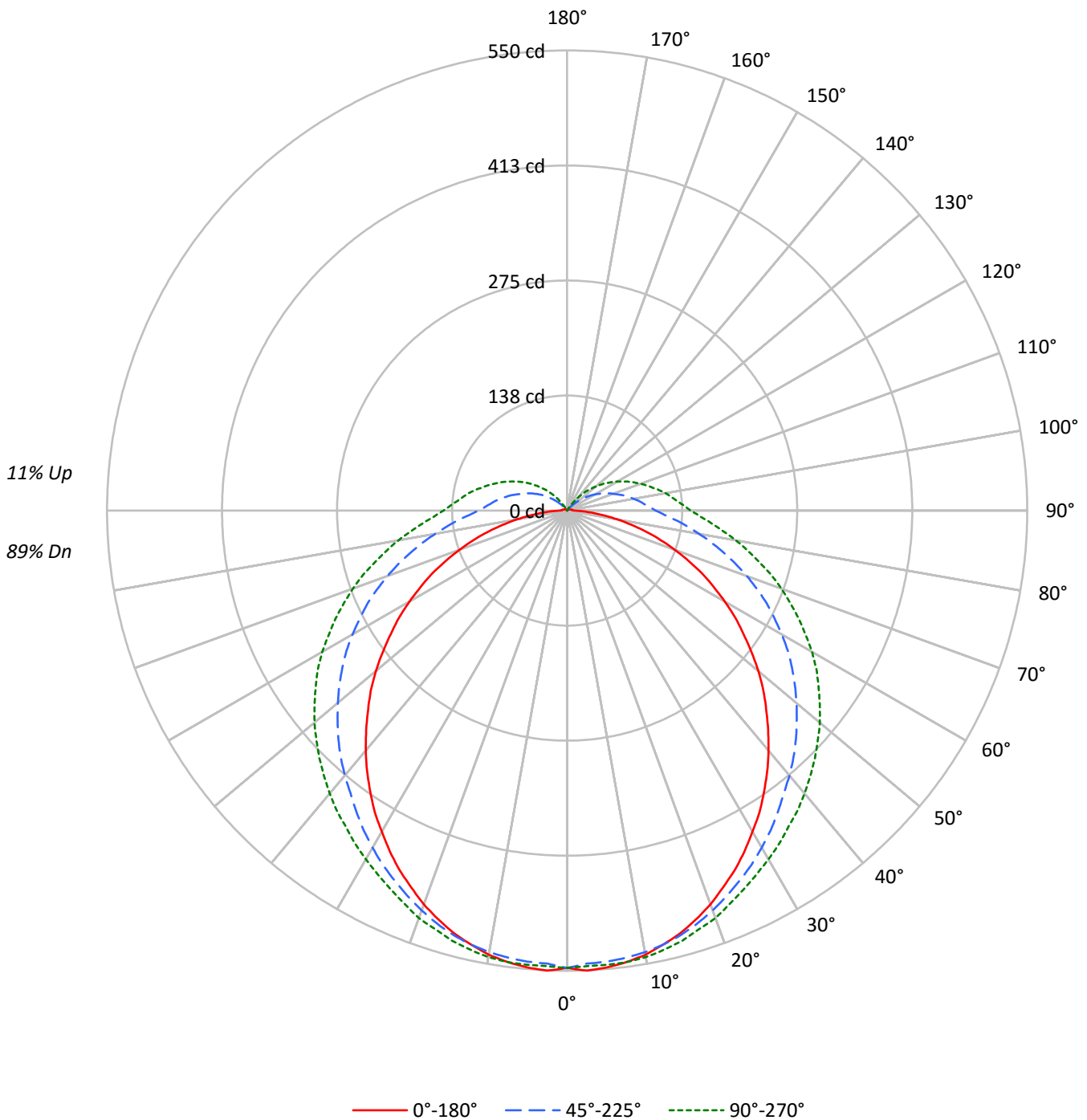
Input Watts (W): 23.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			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°	10411	10411	10411
5°	10460	9982	9925
10°	10386	9652	9524
15°	10254	9311	9100
20°	10074	8943	8699
25°	9867	8577	8288
30°	9624	8236	7957
35°	9399	7895	7661
40°	9147	7602	7420
45°	8874	7340	7177
50°	8622	7070	6951
55°	8290	6815	6709
60°	7996	6535	6471
65°	7673	6251	6183
70°	7204	5911	5905
75°	6690	5550	5580
80°	5954	5193	5298
85°	5210	4913	5014



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.8	2.5
10°-20°	148.8	7.1
20°-30°	225.4	10.7
30°-40°	274.9	13.1
40°-50°	295.8	14.1
50°-60°	287.6	13.7
60°-70°	251.5	12.0
70°-80°	193.6	9.2
80°-90°	130.1	6.2
90°-100°	90.0	4.3
100°-110°	66.2	3.2
110°-120°	44.0	2.1
120°-130°	24.9	1.2
130°-140°	10.7	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°	426.0	20.3
0°-40°	700.9	33.4
0°-60°	1284.3	61.2
0°-90°	1859.4	88.7
90°-120°	200.3	9.5
90°-150°	237.9	11.3
90°-180°	238.0	11.3
0°-180°	2097.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	547	547	547	547	547	
5°	548	546	541	546	545	52
15°	523	525	525	532	532	147
25°	474	482	488	499	499	218
35°	410	424	439	456	461	257
45°	336	357	387	410	419	260
55°	257	288	328	358	367	231
65°	178	216	263	295	305	176
75°	98	143	193	228	238	104
85°	30	78	130	163	173	31
90°	8	55	106	138	148	6
95°	6	44	92	123	132	5
105°	5	27	70	97	106	5
115°	3	13	49	73	82	3
125°	2	2	29	50	57	2
135°	1	1	10	27	34	1
145°	1	0	0	6	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°	546.6	546.6	546.6	546.6	546.6
2.5°	550.4	548.1	542.0	546.6	545.0
5°	548.1	545.8	541.2	545.8	545.0
7.5°	544.3	542.8	539.0	545.0	544.3
10°	539.0	538.2	535.9	542.0	542.0
12.5°	531.3	532.1	531.3	538.2	537.4
15°	523.0	525.2	525.2	532.1	532.1
17.5°	512.3	516.1	517.6	525.2	524.5
20°	500.9	505.5	508.5	516.9	518.4
22.5°	487.2	494.0	498.6	507.7	508.5
25°	474.2	481.9	487.9	498.6	499.4
27.5°	459.0	468.2	477.3	487.9	490.2
30°	443.0	454.5	465.1	478.1	481.1
32.5°	427.8	439.2	452.9	466.6	472.0
35°	410.3	424.0	439.2	456.0	461.3
37.5°	392.8	407.3	425.5	445.3	452.2
40°	374.5	391.3	413.3	434.7	441.5
42.5°	355.5	373.8	400.4	422.5	430.1
45°	336.5	357.0	386.7	410.3	418.7
47.5°	318.2	340.3	372.2	398.9	406.5
50°	298.4	322.8	357.8	385.2	394.3
52.5°	277.8	305.3	343.3	371.5	380.6
55°	257.3	287.7	328.1	357.8	366.9
57.5°	238.3	270.2	312.9	342.6	353.2
60°	217.7	252.0	296.1	327.3	338.0
62.5°	197.2	234.5	279.4	311.3	321.2
65°	178.1	216.2	263.4	295.4	305.3
67.5°	156.8	197.2	245.9	279.4	288.5
70°	137.0	179.7	228.4	261.9	272.5
72.5°	117.2	160.6	210.9	244.4	255.8
75°	98.2	143.1	193.4	227.6	237.5
77.5°	78.4	125.6	176.6	210.9	220.8
80°	60.9	108.1	159.9	194.1	204.8
82.5°	43.4	92.1	144.6	178.1	188.0
85°	29.7	78.4	130.2	162.9	172.8
87.5°	17.5	65.5	116.5	149.2	159.1
90°	8.4	54.8	105.8	137.8	147.7
92.5°	6.9	49.5	98.2	129.4	139.3
95°	6.1	44.2	92.1	122.6	131.7
97.5°	6.1	40.3	86.8	116.5	125.6
100°	5.3	35.8	80.7	109.6	119.5
102.5°	5.3	31.2	75.4	103.5	112.7
105°	4.6	27.4	70.0	97.4	105.8
107.5°	3.8	23.6	63.9	91.3	99.7
110°	3.8	19.8	58.6	85.3	93.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.0	16.7	54.0	79.2	87.5
115°	3.0	12.9	48.7	73.1	81.5
117.5°	3.0	9.1	43.4	67.0	75.4
120°	2.3	6.1	38.8	61.7	69.3
122.5°	2.3	3.8	33.5	55.6	63.2
125°	2.3	1.5	28.9	49.5	57.1
127.5°	1.5	1.5	23.6	44.2	51.0
130°	1.5	0.8	19.0	38.1	44.9
132.5°	1.5	0.8	14.5	32.7	38.8
135°	0.8	0.8	9.9	26.6	33.5
137.5°	0.8	0.8	5.3	21.3	26.6
140°	0.8	0.0	2.3	16.0	20.6
142.5°	0.8	0.0	0.0	10.7	15.2
145°	0.8	0.0	0.0	6.1	9.1
147.5°	0.0	0.0	0.0	1.5	4.6
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)