

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: P243377

Luminaire Tested: **S123DR-H775D935-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243377
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-54)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DR-H775D935-X4F0-XX-UDD-D-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2616.6 lumens
Efficiency: N/A
Efficacy: 110.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.23' x L: 3.88' x H: 0.08')
CIE Type: Direct

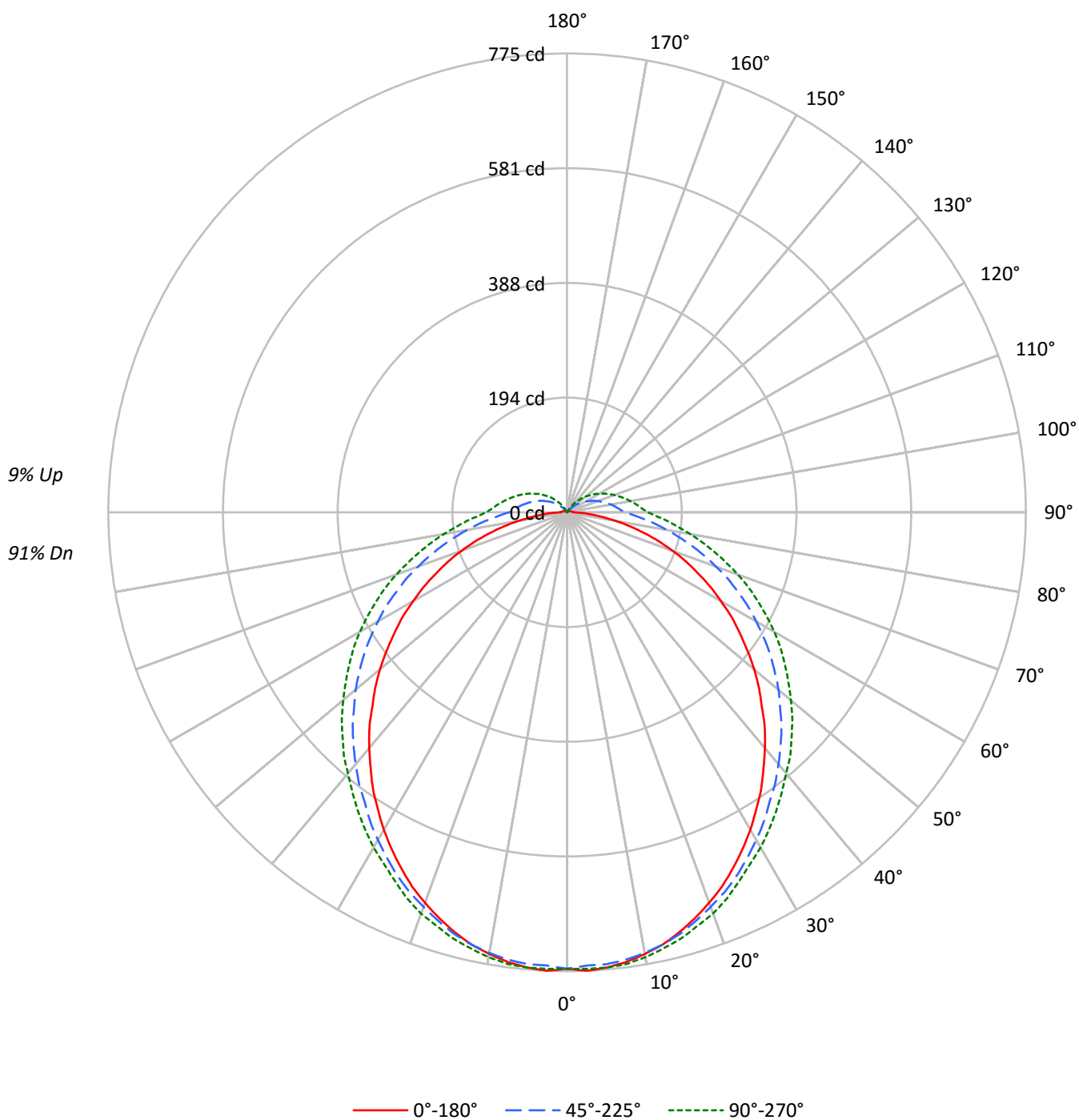
Input Watts (W): 23.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	117	117	117	117	113	113	113	113	106	106	106	100	100	100	94	94	94
1	105	100	95	90	101	96	92	88	91	87	84	85	82	80	80	78	76
2	95	86	79	72	91	83	77	71	78	73	68	74	69	65	69	66	62
3	86	75	66	60	83	73	65	58	69	62	56	65	59	54	61	56	52
4	79	66	57	50	76	64	56	49	61	53	48	57	51	46	54	49	45
5	72	59	50	43	70	57	49	42	54	47	41	51	45	40	49	43	39
6	67	53	44	37	64	52	43	37	49	41	36	46	40	35	44	38	34
7	62	48	39	33	60	47	38	32	44	37	32	42	36	31	40	34	30
8	57	44	35	29	55	43	34	29	41	33	28	39	32	27	37	31	27
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24
10	50	37	29	24	49	36	29	23	35	28	23	33	27	22	32	26	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9344	9344	9344
5°	9372	9105	9100
10°	9286	8875	8824
15°	9158	8622	8521
20°	8982	8321	8214
25°	8782	8042	7859
30°	8558	7730	7561
35°	8333	7413	7263
40°	8084	7155	6979
45°	7812	6900	6741
50°	7582	6639	6494
55°	7301	6372	6251
60°	7009	6078	6015
65°	6701	5763	5726
70°	6348	5427	5444
75°	5822	5061	5110
80°	5151	4697	4819
85°	4577	4403	4596

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.2	2.8
10°-20°	208.7	8.0
20°-30°	312.5	11.9
30°-40°	374.0	14.3
40°-50°	392.1	15.0
50°-60°	368.6	14.1
60°-70°	308.5	11.8
70°-80°	221.4	8.5
80°-90°	132.6	5.1
90°-100°	84.1	3.2
100°-110°	62.0	2.4
110°-120°	41.5	1.6
120°-130°	23.9	0.9
130°-140°	11.0	0.4
140°-150°	2.5	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	594.4	22.7
0°-40°	968.3	37.0
0°-60°	1729.1	66.1
0°-90°	2391.6	91.4
90°-120°	187.5	7.2
90°-150°	225.0	8.6
90°-180°	225.0	8.6
0°-180°	2616.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	771	771	771	771	771	
5°	772	771	766	772	772	73
15°	734	739	737	747	745	207
25°	663	672	678	688	687	305
35°	572	585	596	612	616	357
45°	466	489	512	530	536	360
55°	356	386	419	441	449	319
65°	244	281	318	346	355	243
75°	134	175	218	248	257	143
85°	41	84	130	160	170	42
90°	11	53	98	128	137	8
95°	9	43	85	112	121	7
105°	6	28	65	89	96	7
115°	4	14	46	67	74	4
125°	3	3	28	46	52	3
135°	2	1	12	26	31	1
145°	1	0	0	8	11	1
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°	770.9	770.9	770.9	770.9	770.9
2.5°	775.0	772.5	766.1	773.3	771.7
5°	771.7	770.9	766.1	772.5	771.7
7.5°	766.1	766.1	762.1	769.3	769.3
10°	757.3	759.7	755.7	763.7	762.9
12.5°	747.6	750.8	747.6	756.5	754.1
15°	734.0	738.8	737.2	746.8	745.2
17.5°	718.7	724.3	723.5	733.2	732.4
20°	701.8	709.0	709.0	718.7	721.1
22.5°	684.1	692.2	694.6	704.2	705.8
25°	663.2	672.1	677.7	688.1	687.3
27.5°	641.5	652.0	658.4	669.6	669.6
30°	619.0	631.1	639.1	651.2	653.6
32.5°	594.9	609.4	619.0	631.9	635.1
35°	571.6	585.2	596.5	611.8	615.8
37.5°	545.0	561.9	577.2	593.3	595.7
40°	520.1	538.6	555.5	572.4	575.6
42.5°	494.4	513.7	533.8	550.7	557.9
45°	465.5	488.8	512.1	529.8	536.2
47.5°	439.7	463.0	488.0	508.9	516.1
50°	412.4	436.5	466.3	486.4	493.6
52.5°	384.3	410.8	442.1	463.8	471.1
55°	356.1	385.9	418.8	441.3	449.4
57.5°	329.6	359.3	393.9	418.8	427.7
60°	299.9	332.8	369.0	394.7	404.4
62.5°	273.3	307.1	344.9	370.6	380.2
65°	244.4	280.6	318.3	346.5	355.3
67.5°	217.9	253.2	294.2	322.4	332.0
70°	189.7	226.7	267.7	296.6	307.1
72.5°	161.6	201.0	242.8	272.5	281.4
75°	134.3	175.2	217.9	247.6	257.2
77.5°	108.5	149.5	193.7	223.5	233.9
80°	82.8	125.4	171.2	201.0	211.4
82.5°	60.3	103.7	150.3	179.3	188.9
85°	41.0	83.6	130.2	160.0	170.4
87.5°	24.1	67.5	112.5	142.3	151.1
90°	11.3	53.1	98.1	127.8	136.7
92.5°	10.5	47.4	90.8	119.0	127.8
95°	8.8	43.4	85.2	112.5	121.4
97.5°	8.8	39.4	80.4	106.9	115.0
100°	8.0	35.4	75.6	100.5	108.5
102.5°	7.2	31.4	69.9	94.9	102.9
105°	6.4	28.1	65.1	89.2	96.5
107.5°	5.6	24.1	60.3	83.6	90.8
110°	5.6	20.9	55.5	78.0	85.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.8	17.7	50.6	72.4	79.6
115°	4.0	14.5	45.8	66.7	74.0
117.5°	4.0	11.3	41.0	61.9	68.3
120°	4.0	8.8	37.0	56.3	62.7
122.5°	3.2	5.6	33.0	51.4	57.9
125°	3.2	3.2	28.1	45.8	52.3
127.5°	2.4	1.6	24.1	41.0	46.6
130°	2.4	1.6	20.1	36.2	41.8
132.5°	1.6	1.6	16.1	31.4	37.0
135°	1.6	0.8	12.1	26.5	31.4
137.5°	1.6	0.8	8.0	21.7	26.5
140°	0.8	0.8	4.0	16.9	21.7
142.5°	0.8	0.0	0.8	12.9	16.9
145°	0.8	0.0	0.0	8.0	11.3
147.5°	0.8	0.0	0.0	4.0	7.2
150°	0.8	0.0	0.0	0.0	2.4
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)