

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: P243367

Luminaire Tested: **S123DR-H775D840-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243367
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-H775D840-X4F0-XX-UDD-D-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3069.0 lumens
Efficiency: N/A
Efficacy: 130.0 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

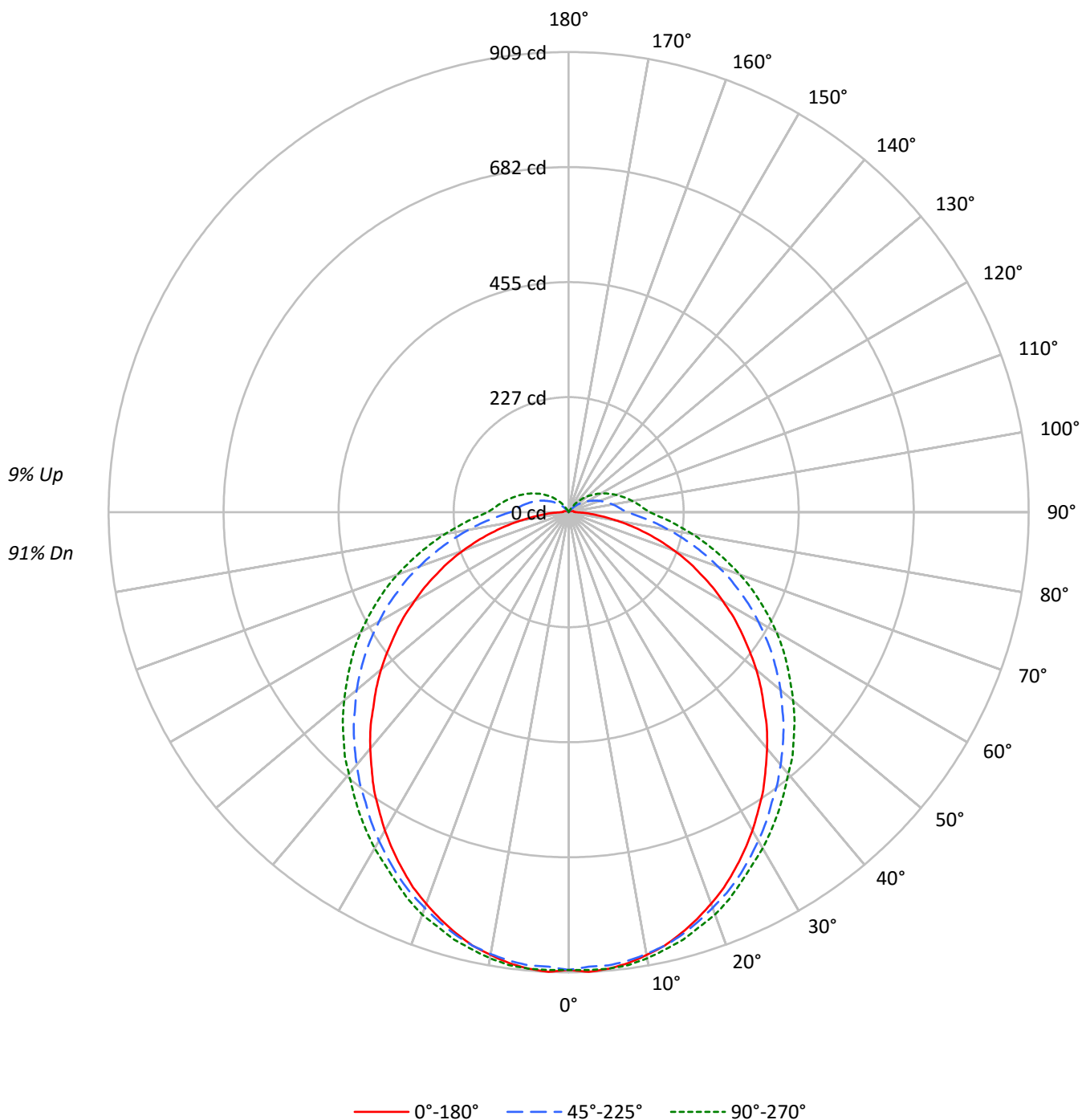
Input Watts (W): 23.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					10
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°	10960	10960	10960
5°	10993	10679	10674
10°	10891	10409	10350
15°	10741	10112	9995
20°	10535	9760	9635
25°	10301	9433	9219
30°	10037	9066	8868
35°	9773	8694	8519
40°	9481	8391	8185
45°	9161	8092	7906
50°	8893	7786	7616
55°	8564	7474	7332
60°	8220	7129	7055
65°	7858	6761	6717
70°	7446	6365	6386
75°	6828	5934	5995
80°	6041	5509	5653
85°	5370	5164	5392

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.8	2.8
10°-20°	244.8	8.0
20°-30°	366.6	11.9
30°-40°	438.6	14.3
40°-50°	459.9	15.0
50°-60°	432.4	14.1
60°-70°	361.9	11.8
70°-80°	259.7	8.5
80°-90°	155.5	5.1
90°-100°	98.6	3.2
100°-110°	72.7	2.4
110°-120°	48.6	1.6
120°-130°	28.1	0.9
130°-140°	12.9	0.4
140°-150°	3.0	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	697.2	22.7
0°-40°	1135.8	37.0
0°-60°	2028.1	66.1
0°-90°	2805.1	91.4
90°-120°	219.9	7.2
90°-150°	263.9	8.6
90°-180°	264.0	8.6
0°-180°	3069.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	904	904	904	904	904	
5°	905	904	899	906	905	86
15°	861	866	865	876	874	243
25°	778	788	795	807	806	358
35°	670	686	700	718	722	419
45°	546	573	601	621	629	422
55°	418	453	491	518	527	374
65°	287	329	373	406	417	285
75°	158	206	256	290	302	167
85°	48	98	153	188	200	49
90°	13	62	115	150	160	9
95°	10	51	100	132	142	9
105°	8	33	76	105	113	8
115°	5	17	54	78	87	5
125°	4	4	33	54	61	3
135°	2	1	14	31	37	1
145°	1	0	0	9	13	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°	904.2	904.2	904.2	904.2	904.2
2.5°	908.9	906.1	898.6	907.1	905.2
5°	905.2	904.2	898.6	906.1	905.2
7.5°	898.6	898.6	893.9	902.3	902.3
10°	888.2	891.0	886.3	895.7	894.8
12.5°	876.9	880.7	876.9	887.3	884.4
15°	860.9	866.5	864.6	875.9	874.1
17.5°	842.9	849.5	848.6	859.9	859.0
20°	823.1	831.6	831.6	842.9	845.8
22.5°	802.4	811.8	814.7	826.0	827.9
25°	777.9	788.3	794.9	807.1	806.2
27.5°	752.4	764.7	772.2	785.4	785.4
30°	726.0	740.2	749.6	763.7	766.6
32.5°	697.7	714.7	726.0	741.1	744.9
35°	670.4	686.4	699.6	717.5	722.3
37.5°	639.3	659.1	677.0	695.9	698.7
40°	610.0	631.7	651.5	671.3	675.1
42.5°	579.9	602.5	626.1	645.9	654.4
45°	545.9	573.3	600.6	621.4	628.9
47.5°	515.8	543.1	572.3	596.8	605.3
50°	483.7	512.0	546.9	570.4	578.9
52.5°	450.7	481.8	518.6	544.0	552.5
55°	417.7	452.6	491.2	517.6	527.1
57.5°	386.6	421.5	462.0	491.2	501.6
60°	351.7	390.4	432.8	463.0	474.3
62.5°	320.6	360.2	404.5	434.7	446.0
65°	286.6	329.1	373.4	406.4	416.8
67.5°	255.5	297.0	345.1	378.1	389.4
70°	222.5	265.9	314.0	347.9	360.2
72.5°	189.5	235.7	284.8	319.6	330.0
75°	157.5	205.5	255.5	290.4	301.7
77.5°	127.3	175.4	227.2	262.1	274.4
80°	97.1	147.1	200.8	235.7	248.0
82.5°	70.7	121.6	176.3	210.3	221.6
85°	48.1	98.1	152.7	187.6	199.9
87.5°	28.3	79.2	132.0	166.9	177.3
90°	13.2	62.2	115.0	149.9	160.3
92.5°	12.3	55.6	106.5	139.5	149.9
95°	10.4	50.9	99.9	132.0	142.4
97.5°	10.4	46.2	94.3	125.4	134.8
100°	9.4	41.5	88.6	117.9	127.3
102.5°	8.5	36.8	82.0	111.3	120.7
105°	7.5	33.0	76.4	104.7	113.1
107.5°	6.6	28.3	70.7	98.1	106.5
110°	6.6	24.5	65.1	91.5	99.9

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.7	20.7	59.4	84.9	93.3
115°	4.7	17.0	53.7	78.3	86.7
117.5°	4.7	13.2	48.1	72.6	80.1
120°	4.7	10.4	43.4	66.0	73.5
122.5°	3.8	6.6	38.7	60.3	67.9
125°	3.8	3.8	33.0	53.7	61.3
127.5°	2.8	1.9	28.3	48.1	54.7
130°	2.8	1.9	23.6	42.4	49.0
132.5°	1.9	1.9	18.9	36.8	43.4
135°	1.9	0.9	14.1	31.1	36.8
137.5°	1.9	0.9	9.4	25.5	31.1
140°	0.9	0.9	4.7	19.8	25.5
142.5°	0.9	0.0	0.9	15.1	19.8
145°	0.9	0.0	0.0	9.4	13.2
147.5°	0.9	0.0	0.0	4.7	8.5
150°	0.9	0.0	0.0	0.0	2.8
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)