

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: P243358

Luminaire Tested: **S123DR-H775D830-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243358
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-H775D830-X4F0-XX-UDD-D-W
Description: DEFINE 3 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: 2864.5 lumens
Efficiency: N/A
Efficacy: 121.4 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

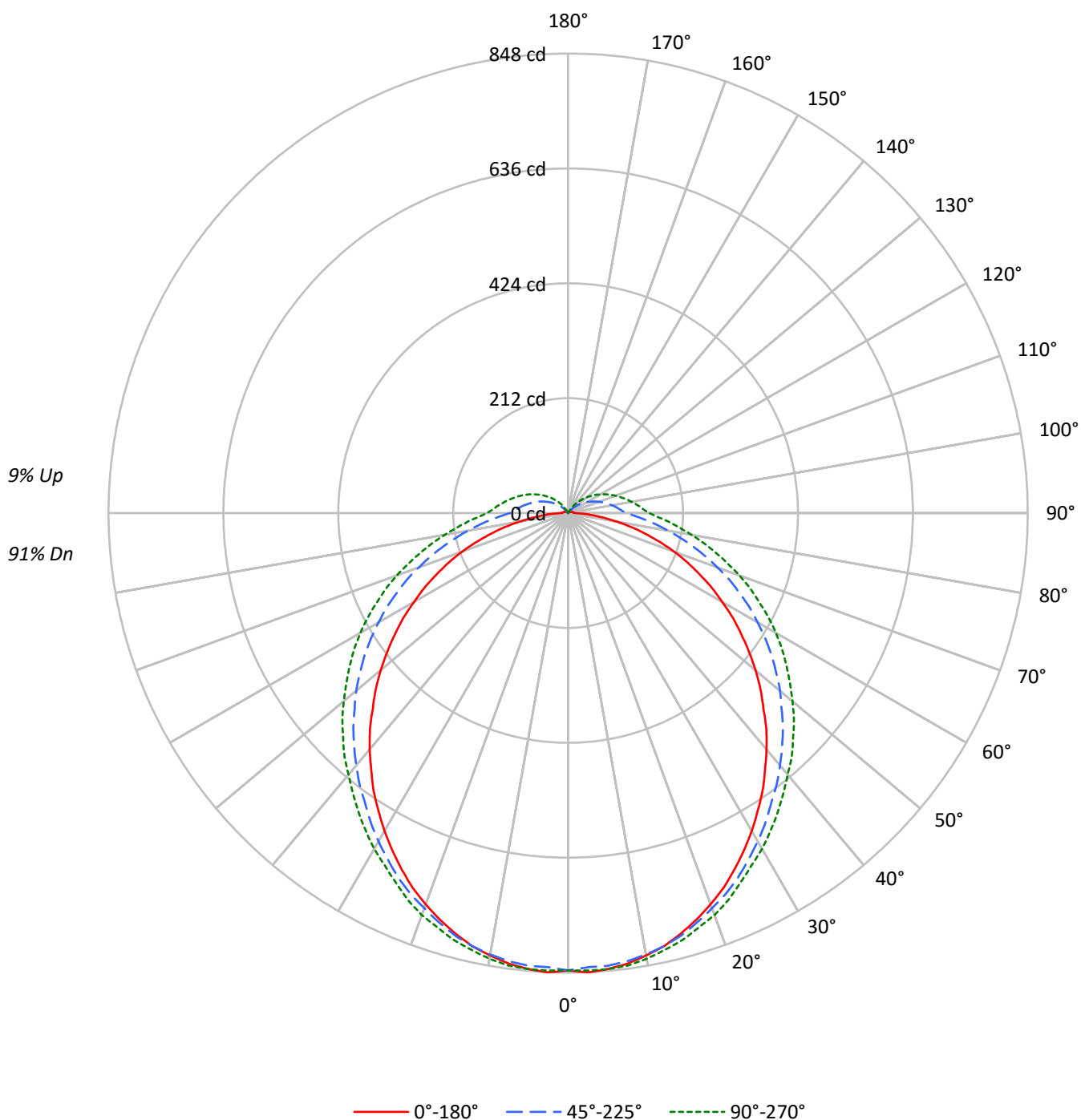
Input Watts (W): 23.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P243358

CATALOG NUMBER: S123DR-H775D830-X4F0-XX-UDD-D-W

Luminous Intensity Polar Plot



TEST NUMBER: P243358

CATALOG NUMBER: S123DR-H775D830-X4F0-XX-UDD-D-W

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°	10230	10230	10230
5°	10260	9967	9962
10°	10165	9715	9660
15°	10025	9438	9328
20°	9833	9109	8992
25°	9613	8804	8604
30°	9368	8461	8277
35°	9121	8115	7951
40°	8850	7832	7639
45°	8550	7553	7379
50°	8301	7266	7108
55°	7994	6976	6842
60°	7673	6653	6585
65°	7334	6310	6269
70°	6950	5942	5960
75°	6373	5540	5595
80°	5637	5141	5275
85°	5012	4822	5033

TEST NUMBER: P243358

CATALOG NUMBER: S123DR-H775D830-X4F0-XX-UDD-D-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.1	2.8
10°-20°	228.4	8.0
20°-30°	342.1	11.9
30°-40°	409.4	14.3
40°-50°	429.3	15.0
50°-60°	403.6	14.1
60°-70°	337.7	11.8
70°-80°	242.4	8.5
80°-90°	145.2	5.1
90°-100°	92.0	3.2
100°-110°	67.8	2.4
110°-120°	45.4	1.6
120°-130°	26.2	0.9
130°-140°	12.1	0.4
140°-150°	2.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	650.7	22.7
0°-40°	1060.0	37.0
0°-60°	1892.9	66.1
0°-90°	2618.1	91.4
90°-120°	205.3	7.2
90°-150°	246.3	8.6
90°-180°	246.0	8.6
0°-180°	2864.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	844	844	844	844	844	
5°	845	844	839	846	845	80
15°	804	809	807	818	816	226
25°	726	736	742	753	752	334
35°	626	641	653	670	674	391
45°	510	535	561	580	587	394
55°	390	422	458	483	492	349
65°	268	307	348	379	389	266
75°	147	192	238	271	282	156
85°	45	92	143	175	187	46
90°	12	58	107	140	150	9
95°	10	48	93	123	133	8
105°	7	31	71	98	106	8
115°	4	16	50	73	81	5
125°	4	4	31	50	57	3
135°	2	1	13	29	34	1
145°	1	0	0	9	12	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

TEST NUMBER: P243358

CATALOG NUMBER: S123DR-H775D830-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	844.0	844.0	844.0	844.0	844.0
2.5°	848.4	845.7	838.7	846.6	844.8
5°	844.8	844.0	838.7	845.7	844.8
7.5°	838.7	838.7	834.3	842.2	842.2
10°	829.0	831.6	827.2	836.0	835.2
12.5°	818.4	822.0	818.4	828.1	825.5
15°	803.5	808.7	807.0	817.5	815.8
17.5°	786.7	792.9	792.0	802.6	801.7
20°	768.3	776.2	776.2	786.7	789.4
22.5°	748.9	757.7	760.3	770.9	772.7
25°	726.0	735.7	741.9	753.3	752.4
27.5°	702.3	713.7	720.7	733.1	733.1
30°	677.6	690.8	699.6	712.8	715.5
32.5°	651.2	667.1	677.6	691.7	695.2
35°	625.7	640.7	653.0	669.7	674.1
37.5°	596.7	615.1	631.9	649.5	652.1
40°	569.4	589.6	608.1	626.6	630.1
42.5°	541.2	562.3	584.3	602.8	610.7
45°	509.5	535.1	560.6	579.9	587.0
47.5°	481.4	506.9	534.2	557.1	565.0
50°	451.5	477.9	510.4	532.4	540.3
52.5°	420.7	449.7	484.0	507.8	515.7
55°	389.9	422.4	458.5	483.1	491.9
57.5°	360.8	393.4	431.2	458.5	468.2
60°	328.3	364.3	403.9	432.1	442.7
62.5°	299.2	336.2	377.5	405.7	416.3
65°	267.5	307.1	348.5	379.3	389.0
67.5°	238.5	277.2	322.1	352.9	363.5
70°	207.7	248.2	293.1	324.7	336.2
72.5°	176.9	220.0	265.8	298.3	308.0
75°	147.0	191.8	238.5	271.0	281.6
77.5°	118.8	163.7	212.1	244.6	256.1
80°	90.6	137.3	187.4	220.0	231.4
82.5°	66.0	113.5	164.6	196.2	206.8
85°	44.9	91.5	142.6	175.1	186.6
87.5°	26.4	73.9	123.2	155.8	165.4
90°	12.3	58.1	107.4	139.9	149.6
92.5°	11.4	51.9	99.4	130.2	139.9
95°	9.7	47.5	93.3	123.2	132.9
97.5°	9.7	43.1	88.0	117.0	125.8
100°	8.8	38.7	82.7	110.0	118.8
102.5°	7.9	34.3	76.6	103.8	112.6
105°	7.0	30.8	71.3	97.7	105.6
107.5°	6.2	26.4	66.0	91.5	99.4
110°	6.2	22.9	60.7	85.4	93.3

TEST NUMBER: P243358

CATALOG NUMBER: S123DR-H775D830-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.3	19.4	55.4	79.2	87.1
115°	4.4	15.8	50.2	73.0	81.0
117.5°	4.4	12.3	44.9	67.8	74.8
120°	4.4	9.7	40.5	61.6	68.6
122.5°	3.5	6.2	36.1	56.3	63.4
125°	3.5	3.5	30.8	50.2	57.2
127.5°	2.6	1.8	26.4	44.9	51.0
130°	2.6	1.8	22.0	39.6	45.8
132.5°	1.8	1.8	17.6	34.3	40.5
135°	1.8	0.9	13.2	29.0	34.3
137.5°	1.8	0.9	8.8	23.8	29.0
140°	0.9	0.9	4.4	18.5	23.8
142.5°	0.9	0.0	0.9	14.1	18.5
145°	0.9	0.0	0.0	8.8	12.3
147.5°	0.9	0.0	0.0	4.4	7.9
150°	0.9	0.0	0.0	0.0	2.6
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)