

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: P243298

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243298
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-49)
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-F-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN FLUSH 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: 3025.6 lumens
Efficiency: N/A
Efficacy: 128.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.23' x L: 3.88' x H: 0')
CIE Type: Direct

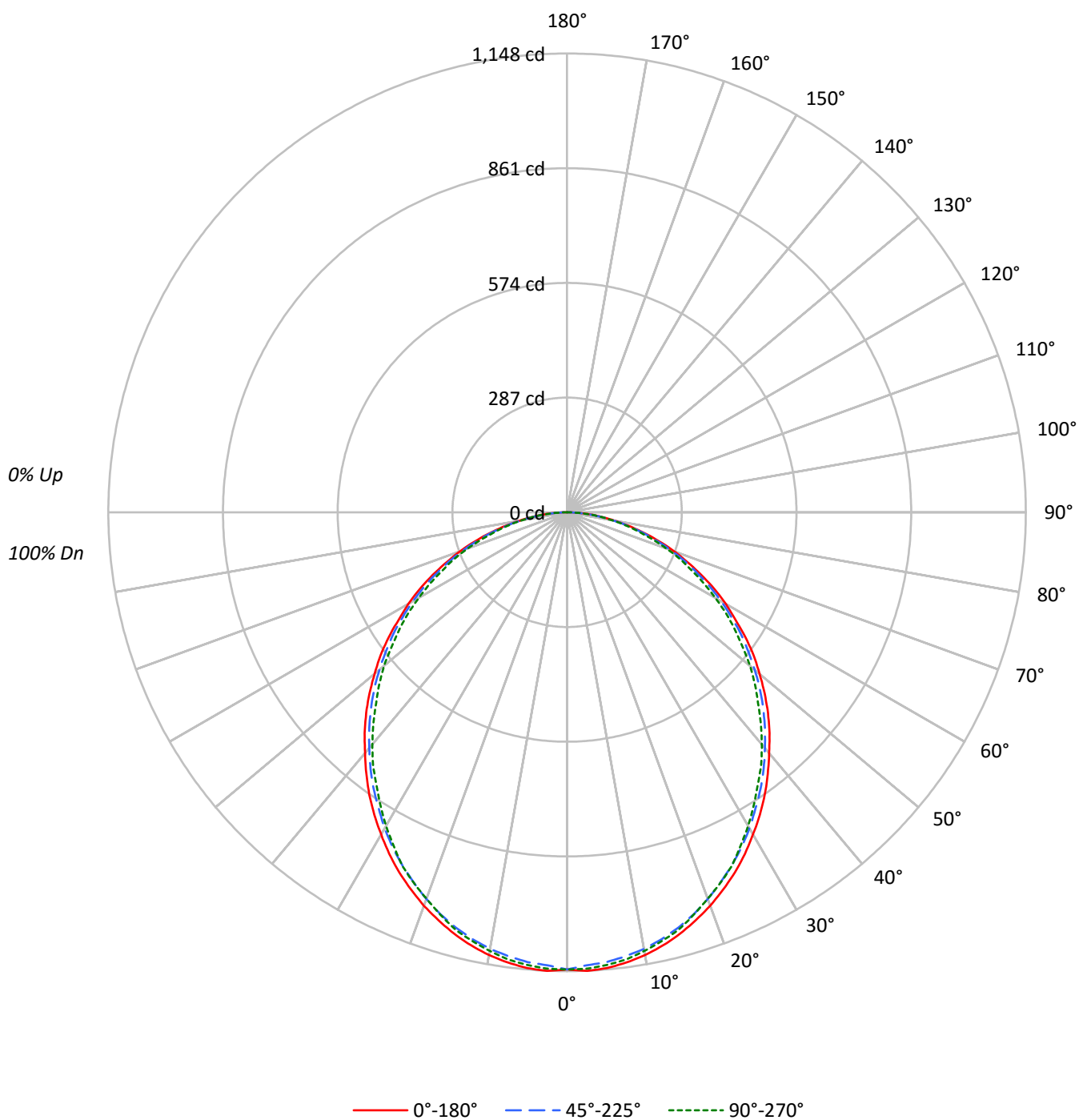
Input Watts (W): 23.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	109	104	100	96	106	102	98	94		97	94	91		94	91	89		90	88	86
2	99	91	84	78	96	89	83	77		85	80	76		82	78	74		79	75	72
3	90	80	72	65	88	78	71	65		75	69	64		73	67	62		70	65	61
4	83	71	62	55	80	70	61	55		67	60	54		65	59	54		63	57	53
5	76	63	54	48	74	62	54	48		60	53	47		58	52	47		56	51	46
6	70	57	48	42	69	56	48	42		54	47	41		53	46	41		51	45	41
7	65	52	43	37	64	51	43	37		50	42	37		48	41	36		47	41	36
8	61	47	39	33	59	47	39	33		45	38	33		44	37	33		43	37	32
9	57	44	35	30	56	43	35	30		42	35	30		41	34	29		40	34	29
10	53	40	32	27	52	40	32	27		39	32	27		38	31	27		37	31	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13863	13863	13863
5°	13928	13744	13836
10°	13846	13647	13718
15°	13702	13500	13560
20°	13513	13281	13269
25°	13291	13040	13052
30°	13025	12774	12682
35°	12766	12487	12305
40°	12443	12189	11996
45°	12186	11897	11590
50°	11859	11558	11273
55°	11517	11217	10839
60°	11108	10812	10378
65°	10629	10302	9872
70°	10093	9757	9356
75°	9362	9095	8613
80°	8425	8230	7965
85°	7872	7468	7218

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.9	3.6
10°-20°	305.2	10.1
20°-30°	451.8	14.9
30°-40°	529.8	17.5
40°-50°	535.6	17.7
50°-60°	473.7	15.7
60°-70°	355.8	11.8
70°-80°	205.0	6.8
80°-90°	60.8	2.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	864.8	28.6
0°-40°	1394.6	46.1
0°-60°	2404.0	79.5
0°-90°	3025.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3025.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1144	1144	1144	1144	1144	
5°	1145	1140	1130	1139	1137	109
15°	1092	1086	1076	1083	1081	308
25°	994	986	975	980	976	458
35°	863	855	844	841	832	539
45°	711	705	694	684	676	548
55°	545	541	531	520	513	487
65°	371	368	359	350	344	367
75°	200	198	194	189	184	212
85°	57	56	54	53	52	63
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1143.7	1143.7	1143.7	1143.7	1143.7
2.5°	1148.4	1144.7	1134.3	1144.7	1142.8
5°	1144.7	1140.0	1129.6	1139.0	1137.1
7.5°	1136.2	1131.5	1120.2	1130.5	1128.6
10°	1124.9	1120.2	1108.8	1117.3	1114.5
12.5°	1109.8	1105.1	1093.8	1100.4	1098.5
15°	1091.9	1086.2	1075.8	1083.4	1080.6
17.5°	1070.2	1065.5	1054.2	1063.6	1055.1
20°	1047.6	1042.8	1029.6	1038.1	1028.7
22.5°	1021.2	1015.5	1002.3	1008.0	1003.2
25°	993.8	986.3	975.0	979.7	975.9
27.5°	963.6	956.1	944.8	946.7	940.1
30°	930.6	924.0	912.7	914.6	906.1
32.5°	897.6	892.0	877.8	877.8	869.3
35°	862.7	855.2	843.9	841.1	831.6
37.5°	825.0	818.4	808.1	803.3	797.7
40°	786.4	782.6	770.3	764.7	758.1
42.5°	749.6	743.0	732.6	725.1	717.5
45°	710.9	705.3	694.0	684.5	676.1
47.5°	670.4	665.7	654.4	644.0	637.4
50°	628.9	625.1	612.9	601.6	597.8
52.5°	588.4	583.6	571.4	561.0	553.5
55°	545.0	541.2	530.8	520.5	512.9
57.5°	498.8	498.8	487.5	478.0	472.4
60°	458.2	453.5	446.0	435.6	428.1
62.5°	415.8	413.0	402.6	392.2	386.6
65°	370.6	367.7	359.2	349.8	344.2
67.5°	326.2	325.3	317.8	310.2	306.4
70°	284.8	282.9	275.3	267.8	264.0
72.5°	242.3	240.4	233.8	227.2	222.5
75°	199.9	198.0	194.2	188.6	183.9
77.5°	158.4	158.4	153.7	151.8	149.9
80°	120.7	119.7	117.9	116.0	114.1
82.5°	86.7	85.8	83.9	83.0	83.0
85°	56.6	55.6	53.7	52.8	51.9
87.5°	29.2	27.3	26.4	24.5	23.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)