

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: P243313

Luminaire Tested: **S123DR-H775D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243313
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-H775D940-X4F0-XX-UDD-F-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2671.6 lumens
Efficiency: N/A
Efficacy: 113.2 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

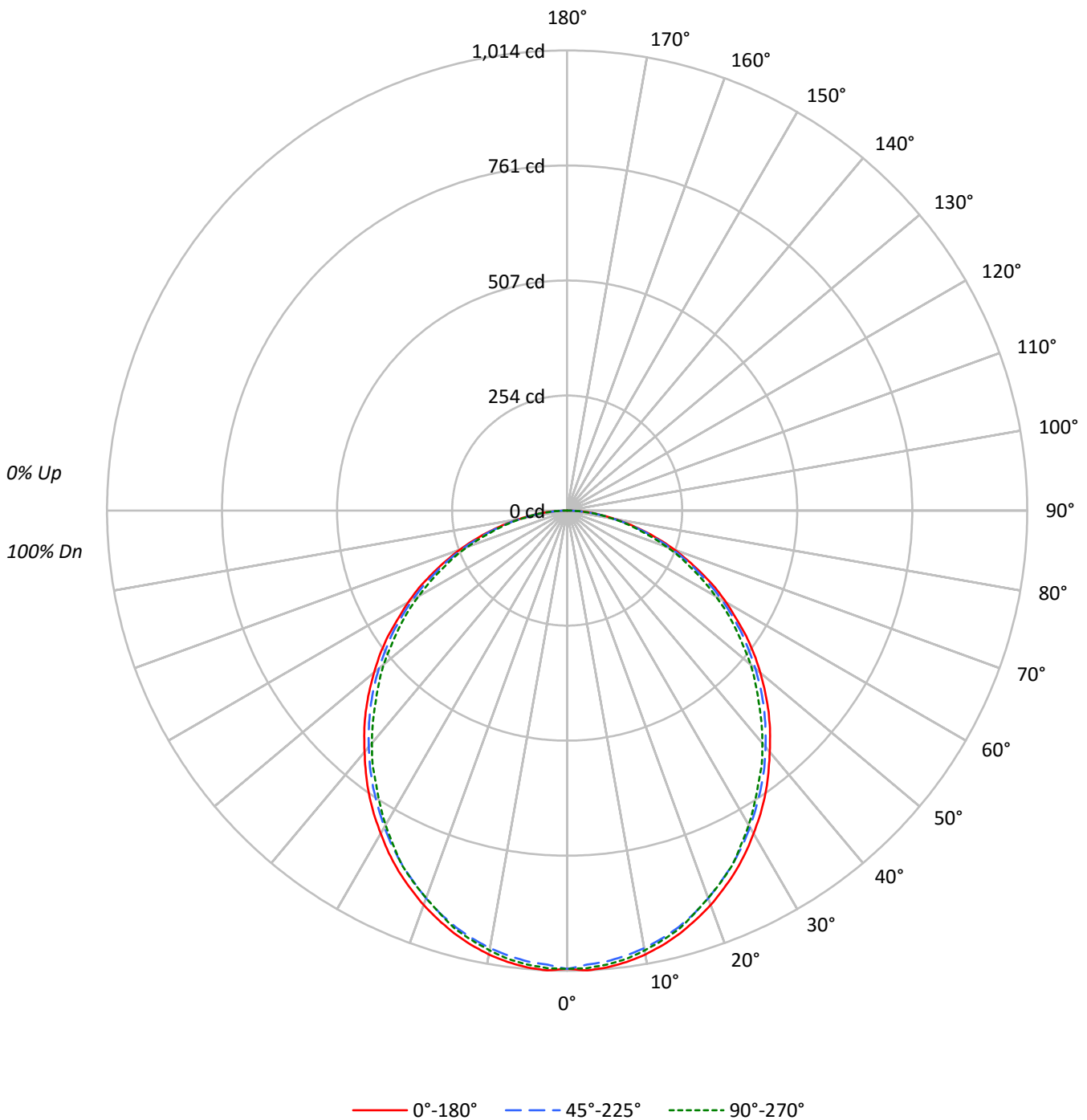
Input Watts (W): 23.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	59
4	83	71	62	55	80	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	63	54	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30
9	57	44	35	30	56	43	35	30	42	35	30	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12241	12241	12241
5°	12298	12136	12217
10°	12226	12051	12113
15°	12098	11921	11973
20°	11932	11728	11716
25°	11736	11514	11525
30°	11501	11280	11199
35°	11273	11027	10866
40°	10988	10763	10592
45°	10762	10505	10234
50°	10471	10206	9955
55°	10169	9905	9571
60°	9808	9547	9164
65°	9385	9098	8716
70°	8910	8615	8261
75°	8266	8032	7606
80°	7441	7267	7029
85°	6954	6606	6370



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.3	3.6
10°-20°	269.4	10.1
20°-30°	398.9	14.9
30°-40°	467.8	17.5
40°-50°	473.0	17.7
50°-60°	418.3	15.7
60°-70°	314.2	11.8
70°-80°	181.1	6.8
80°-90°	53.7	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°	763.6	28.6
0°-40°	1231.5	46.1
0°-60°	2122.7	79.5
0°-90°	2671.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2671.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1010	1010	1010	1010	1010	
5°	1011	1007	997	1006	1004	96
15°	964	959	950	957	954	272
25°	878	871	861	865	862	404
35°	762	755	745	743	734	476
45°	628	623	613	604	597	484
55°	481	478	469	460	453	430
65°	327	325	317	309	304	324
75°	176	175	172	166	162	187
85°	50	49	48	47	46	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1009.9	1009.9	1009.9	1009.9	1009.9
2.5°	1014.1	1010.7	1001.6	1010.7	1009.1
5°	1010.7	1006.6	997.4	1005.7	1004.1
7.5°	1003.3	999.1	989.1	998.3	996.6
10°	993.3	989.1	979.1	986.6	984.1
12.5°	979.9	975.8	965.8	971.6	969.9
15°	964.1	959.1	950.0	956.6	954.1
17.5°	945.0	940.8	930.8	939.1	931.6
20°	925.0	920.8	909.2	916.7	908.3
22.5°	901.7	896.7	885.0	890.0	885.9
25°	877.5	870.9	860.9	865.0	861.7
27.5°	850.9	844.2	834.2	835.9	830.1
30°	821.7	815.9	805.9	807.6	800.1
32.5°	792.6	787.6	775.1	775.1	767.6
35°	761.8	755.1	745.2	742.7	734.3
37.5°	728.5	722.7	713.5	709.4	704.4
40°	694.4	691.0	680.2	675.2	669.4
42.5°	661.9	656.1	646.9	640.2	633.6
45°	627.8	622.8	612.8	604.4	597.0
47.5°	592.0	587.8	577.8	568.6	562.8
50°	555.3	552.0	541.2	531.2	527.9
52.5°	519.5	515.4	504.5	495.4	488.7
55°	481.2	477.9	468.7	459.6	452.9
57.5°	440.4	440.4	430.4	422.1	417.1
60°	404.6	400.5	393.8	384.6	378.0
62.5°	367.2	364.7	355.5	346.4	341.4
65°	327.2	324.7	317.2	308.9	303.9
67.5°	288.1	287.2	280.6	273.9	270.6
70°	251.4	249.8	243.1	236.5	233.1
72.5°	214.0	212.3	206.5	200.7	196.5
75°	176.5	174.8	171.5	166.5	162.4
77.5°	139.9	139.9	135.7	134.0	132.4
80°	106.6	105.7	104.1	102.4	100.7
82.5°	76.6	75.8	74.1	73.3	73.3
85°	50.0	49.1	47.5	46.6	45.8
87.5°	25.8	24.1	23.3	21.6	20.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)