

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: P243289

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243289
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-H775D830-X4F0-XX-UDD-F-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN FLUSH 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: 2823.9 lumens
Efficiency: N/A
Efficacy: 119.7 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

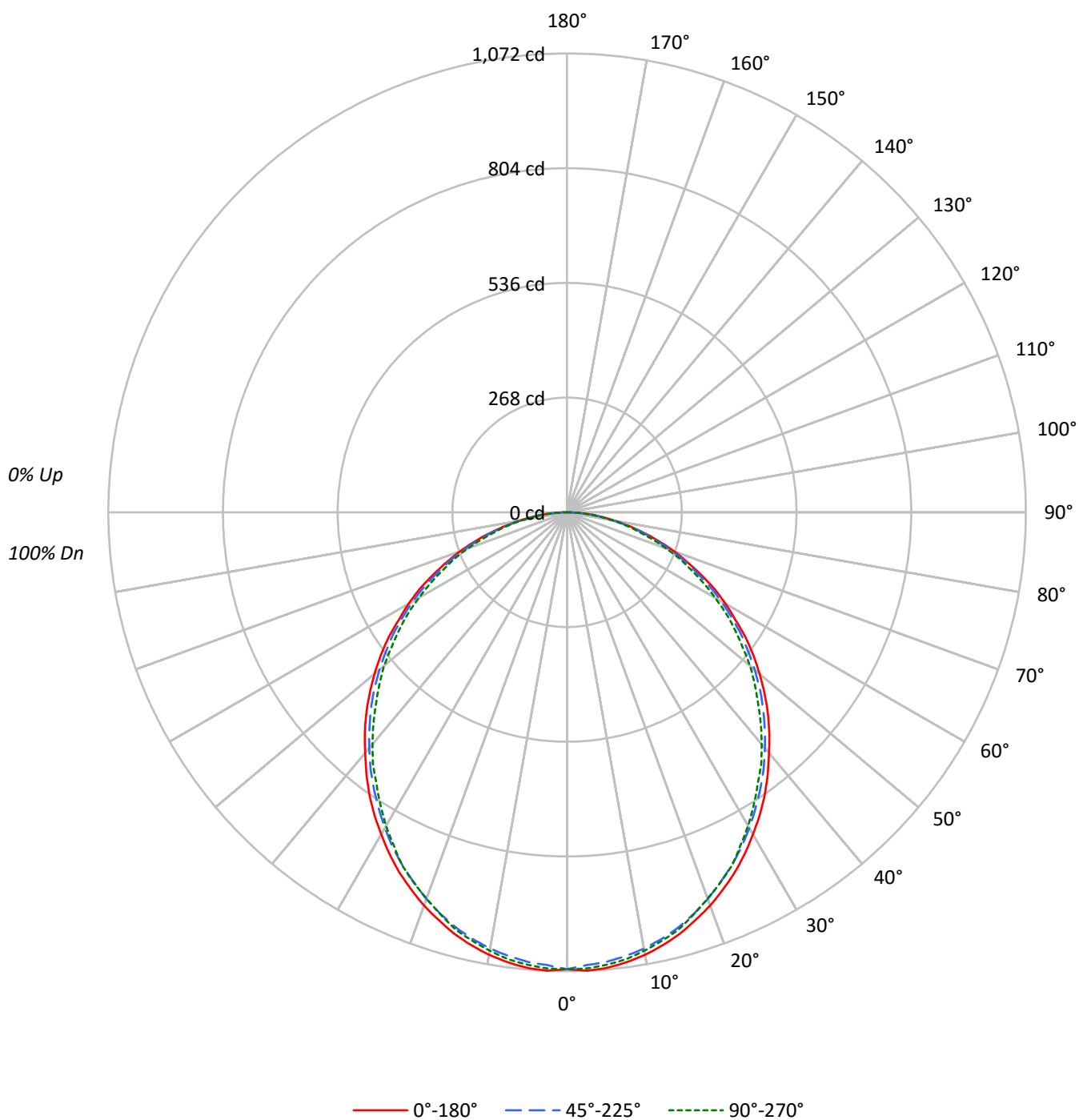
Input Watts (W): 23.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10
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°	12939	12939	12939
5°	13000	12828	12913
10°	12922	12738	12803
15°	12788	12600	12655
20°	12611	12396	12384
25°	12406	12171	12181
30°	12157	11924	11837
35°	11915	11654	11486
40°	11613	11377	11195
45°	11374	11103	10817
50°	11069	10786	10520
55°	10750	10471	10116
60°	10368	10092	9685
65°	9921	9617	9212
70°	9420	9108	8732
75°	8739	8491	8037
80°	7860	7678	7434
85°	7343	6982	6731

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.7	3.6
10°-20°	284.8	10.1
20°-30°	421.7	14.9
30°-40°	494.5	17.5
40°-50°	499.9	17.7
50°-60°	442.1	15.7
60°-70°	332.1	11.8
70°-80°	191.4	6.8
80°-90°	56.8	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°	807.2	28.6
0°-40°	1301.7	46.1
0°-60°	2243.7	79.5
0°-90°	2823.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2823.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1068	1068	1068	1068	1068	
5°	1068	1064	1054	1063	1061	101
15°	1019	1014	1004	1011	1008	287
25°	928	920	910	914	911	427
35°	805	798	788	785	776	503
45°	664	658	648	639	631	511
55°	509	505	496	486	479	454
65°	346	343	335	326	321	343
75°	187	185	181	176	172	198
85°	53	52	50	49	48	59
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1067.5	1067.5	1067.5	1067.5	1067.5
2.5°	1071.9	1068.4	1058.7	1068.4	1066.6
5°	1068.4	1064.0	1054.3	1063.1	1061.3
7.5°	1060.4	1056.0	1045.5	1055.2	1053.4
10°	1049.9	1045.5	1034.9	1042.8	1040.2
12.5°	1035.8	1031.4	1020.8	1027.0	1025.2
15°	1019.1	1013.8	1004.1	1011.2	1008.5
17.5°	998.8	994.4	983.9	992.7	984.8
20°	977.7	973.3	961.0	968.9	960.1
22.5°	953.1	947.8	935.5	940.8	936.4
25°	927.6	920.5	910.0	914.4	910.8
27.5°	899.4	892.4	881.8	883.6	877.4
30°	868.6	862.4	851.9	853.6	845.7
32.5°	837.8	832.5	819.3	819.3	811.4
35°	805.2	798.2	787.6	785.0	776.2
37.5°	770.0	763.9	754.2	749.8	744.5
40°	733.9	730.4	719.0	713.7	707.5
42.5°	699.6	693.5	683.8	676.7	669.7
45°	663.5	658.3	647.7	638.9	631.0
47.5°	625.7	621.3	610.7	601.1	594.9
50°	587.0	583.5	572.0	561.5	557.9
52.5°	549.1	544.7	533.3	523.6	516.6
55°	508.7	505.1	495.5	485.8	478.7
57.5°	465.5	465.5	455.0	446.2	440.9
60°	427.7	423.3	416.3	406.6	399.5
62.5°	388.1	385.5	375.8	366.1	360.8
65°	345.9	343.2	335.3	326.5	321.2
67.5°	304.5	303.6	296.6	289.5	286.0
70°	265.8	264.0	257.0	249.9	246.4
72.5°	226.2	224.4	218.2	212.1	207.7
75°	186.6	184.8	181.3	176.0	171.6
77.5°	147.8	147.8	143.4	141.7	139.9
80°	112.6	111.8	110.0	108.2	106.5
82.5°	81.0	80.1	78.3	77.4	77.4
85°	52.8	51.9	50.2	49.3	48.4
87.5°	27.3	25.5	24.6	22.9	22.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)