

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: P242517

Luminaire Tested: **S123DR-S775D935-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242517
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-15)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DR-S775D935-X4F0-XX-UDD-D-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2656.4 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.23' x L: 3.88' x H: 0.08')
CIE Type: Direct

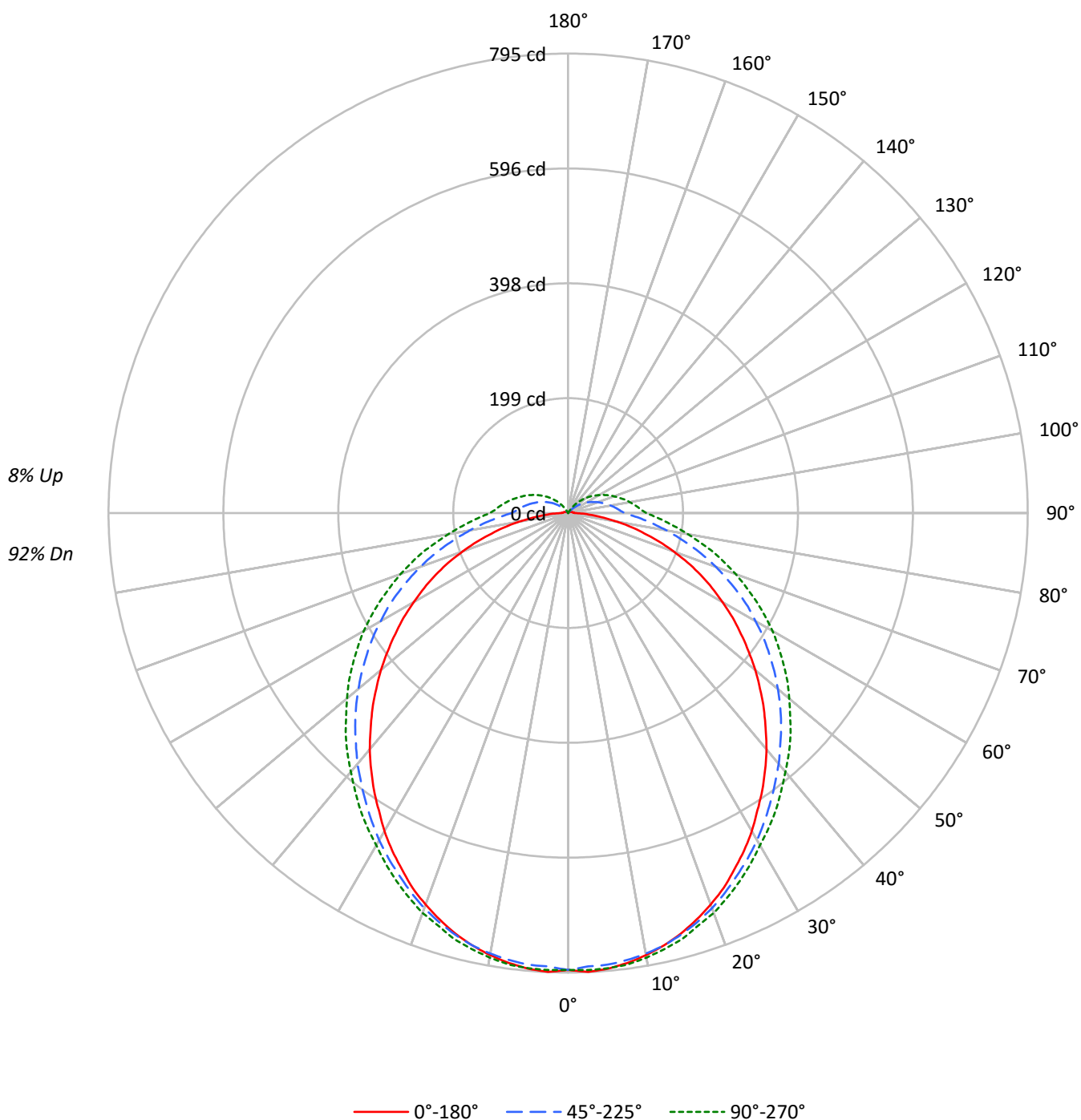
Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0		
RCR																				
0	117	117	117	117	113	113	113	113	106	106	106	100	100	100	94	94	94	92		
1	105	100	95	90	102	97	92	88	91	87	84	85	82	80	80	78	76	73		
2	95	86	79	72	92	83	77	71	79	73	68	74	69	65	70	66	63	60		
3	86	75	67	60	83	73	65	59	69	62	56	65	59	54	61	56	52	50		
4	79	66	57	50	76	64	56	49	61	54	48	57	51	46	54	49	45	42		
5	72	59	50	43	70	58	49	42	54	47	41	52	45	40	49	43	39	36		
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	44	38	34	32		
7	62	48	39	33	60	47	38	32	45	37	32	42	36	31	40	35	30	28		
8	58	44	35	29	56	43	35	29	41	33	28	39	32	28	37	31	27	25		
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24	22		
10	50	37	29	24	49	36	29	24	35	28	23	33	27	23	32	26	22	20		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9581	9581	9581
5°	9610	9322	9321
10°	9522	9090	9032
15°	9400	8831	8722
20°	9224	8538	8386
25°	9007	8205	8034
30°	8784	7904	7679
35°	8535	7586	7393
40°	8297	7296	7088
45°	8033	7018	6841
50°	7774	6743	6570
55°	7486	6459	6323
60°	7203	6169	6070
65°	6917	5861	5772
70°	6482	5516	5464
75°	5935	5119	5150
80°	5301	4724	4789
85°	4711	4427	4553

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.0	2.8
10°-20°	213.7	8.0
20°-30°	319.6	12.0
30°-40°	381.6	14.4
40°-50°	399.3	15.0
50°-60°	374.7	14.1
60°-70°	313.0	11.8
70°-80°	223.8	8.4
80°-90°	133.2	5.0
90°-100°	83.7	3.2
100°-110°	61.5	2.3
110°-120°	41.1	1.5
120°-130°	23.4	0.9
130°-140°	10.5	0.4
140°-150°	2.2	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	608.4	22.9
0°-40°	990.0	37.3
0°-60°	1764.0	66.4
0°-90°	2433.9	91.6
90°-120°	186.3	7.0
90°-150°	222.4	8.4
90°-180°	222.0	8.4
0°-180°	2656.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	790	790	790	790	790	
5°	791	790	784	791	790	75
15°	753	756	755	764	763	212
25°	680	689	691	703	703	314
35°	586	599	610	623	627	366
45°	479	499	521	537	544	369
55°	365	394	424	448	455	327
65°	252	286	324	350	358	249
75°	137	177	220	249	259	146
85°	42	85	131	160	169	43
90°	11	53	97	127	135	8
95°	10	43	85	112	120	7
105°	7	28	65	89	96	7
115°	4	15	46	66	73	5
125°	3	3	28	46	52	3
135°	2	1	10	26	30	1
145°	1	0	0	7	10	0
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°	790.4	790.4	790.4	790.4	790.4
2.5°	794.7	792.1	785.2	792.1	791.3
5°	791.3	789.5	784.4	791.3	790.4
7.5°	785.2	785.2	780.1	788.7	787.8
10°	776.6	778.3	774.0	782.6	780.9
12.5°	766.3	768.9	766.3	774.0	772.3
15°	753.4	756.0	755.1	763.7	762.8
17.5°	737.9	743.0	742.2	749.9	748.2
20°	720.7	725.8	727.5	735.3	736.2
22.5°	702.6	707.7	710.3	720.7	719.8
25°	680.2	688.8	691.4	702.6	702.6
27.5°	658.7	668.1	673.3	682.8	683.6
30°	635.4	646.6	653.5	663.8	663.8
32.5°	609.6	622.5	632.0	643.2	645.8
35°	585.5	599.3	610.4	623.4	626.8
37.5°	559.7	575.1	588.1	602.7	605.3
40°	533.8	549.3	566.5	581.2	584.6
42.5°	505.4	525.2	543.3	559.7	564.8
45°	478.7	499.4	520.9	537.3	544.2
47.5°	450.3	473.6	497.7	515.7	520.9
50°	422.8	446.9	473.6	493.4	499.4
52.5°	393.5	419.3	449.4	470.1	477.9
55°	365.1	393.5	424.5	447.7	454.6
57.5°	337.5	366.8	400.4	423.6	431.4
60°	308.2	339.2	374.5	398.6	408.1
62.5°	280.7	312.5	350.4	374.5	383.1
65°	252.3	285.9	323.7	349.6	358.2
67.5°	223.9	259.2	297.0	325.5	332.3
70°	193.7	230.7	272.1	299.6	308.2
72.5°	166.2	203.2	246.2	274.7	283.3
75°	136.9	177.4	220.4	248.8	259.2
77.5°	111.9	152.4	195.4	225.6	233.3
80°	85.2	127.4	172.2	201.5	210.1
82.5°	62.0	105.0	150.7	179.9	188.6
85°	42.2	85.2	130.9	160.1	168.8
87.5°	25.8	68.9	112.8	142.1	150.7
90°	11.2	53.4	97.3	126.6	135.2
92.5°	10.3	47.4	90.4	118.8	126.6
95°	9.5	43.1	85.2	111.9	120.5
97.5°	8.6	39.6	80.1	105.9	114.5
100°	7.7	35.3	74.9	99.9	108.5
102.5°	6.9	31.0	69.7	93.8	102.5
105°	6.9	27.6	64.6	88.7	96.4
107.5°	6.0	24.1	59.4	82.7	90.4
110°	5.2	20.7	55.1	77.5	84.4

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.2	17.2	49.9	71.5	79.2
115°	4.3	14.6	45.6	66.3	73.2
117.5°	4.3	11.2	40.5	61.1	68.0
120°	3.4	7.7	36.2	56.0	62.0
122.5°	3.4	5.2	31.9	50.8	56.8
125°	2.6	2.6	27.6	45.6	51.7
127.5°	2.6	1.7	23.2	40.5	46.5
130°	2.6	1.7	18.9	35.3	40.5
132.5°	1.7	1.7	14.6	30.1	36.2
135°	1.7	0.9	10.3	25.8	30.1
137.5°	1.7	0.9	6.9	20.7	25.0
140°	0.9	0.9	3.4	16.4	20.7
142.5°	0.9	0.0	0.0	11.2	15.5
145°	0.9	0.0	0.0	6.9	10.3
147.5°	0.0	0.0	0.0	2.6	6.0
150°	0.0	0.0	0.0	0.0	1.7
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)