

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: P243307

Luminaire Tested: **S123DR-H560D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243307
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-H560D935-X4F0-XX-UDD-F-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1841.9 lumens
Efficiency: N/A
Efficacy: 107.1 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

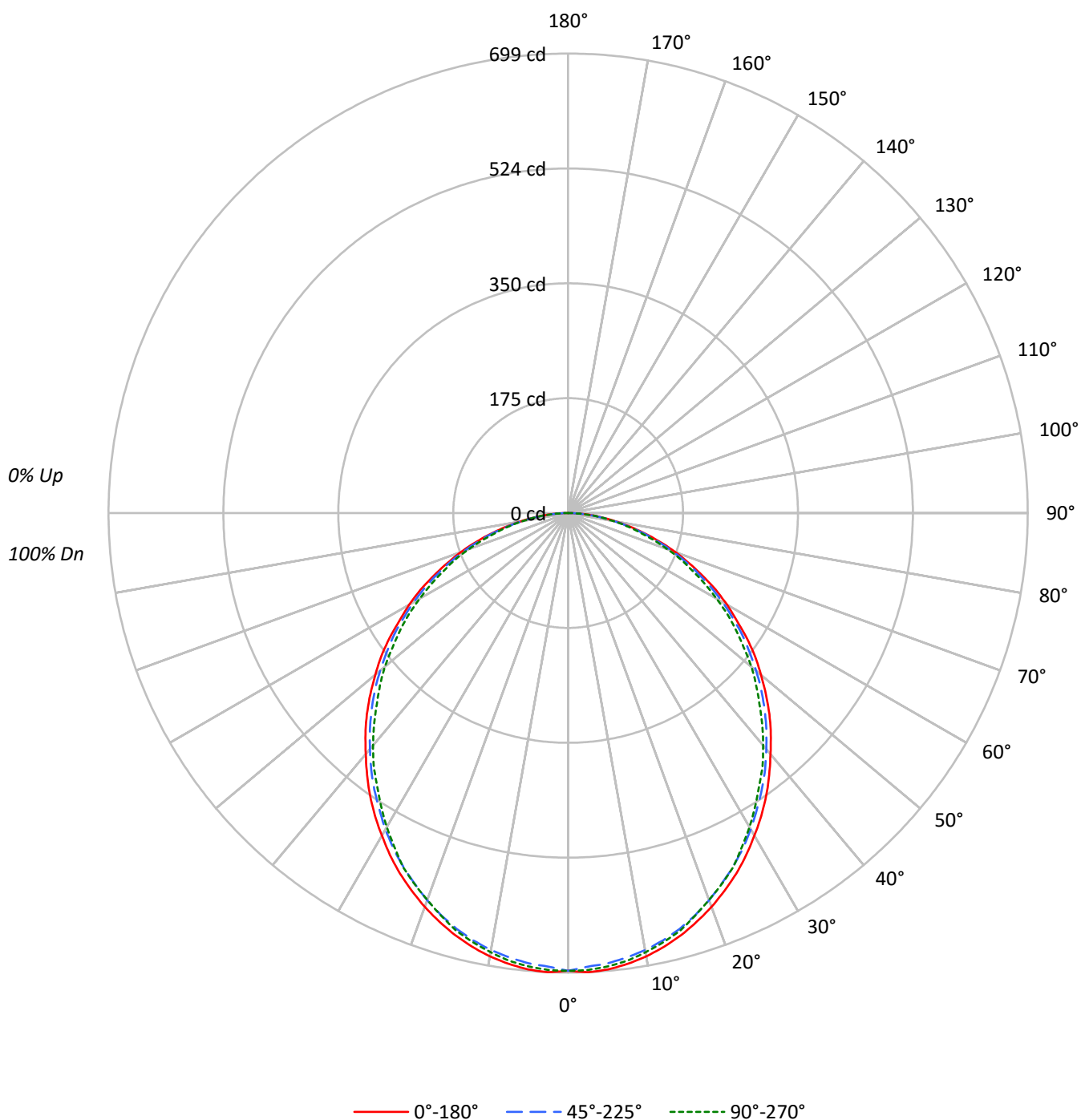
Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	8440	8440	8440
5°	8480	8368	8424
10°	8429	8308	8351
15°	8341	8218	8255
20°	8226	8085	8077
25°	8091	7938	7946
30°	7930	7776	7720
35°	7772	7601	7492
40°	7575	7421	7302
45°	7419	7242	7056
50°	7220	7036	6862
55°	7012	6830	6600
60°	6764	6582	6318
65°	6470	6273	6009
70°	6145	5940	5695
75°	5700	5536	5241
80°	5131	5012	4851
85°	4784	4548	4395

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.7	3.6
10°-20°	185.8	10.1
20°-30°	275.0	14.9
30°-40°	322.5	17.5
40°-50°	326.1	17.7
50°-60°	288.4	15.7
60°-70°	216.6	11.8
70°-80°	124.8	6.8
80°-90°	37.0	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°	526.5	28.6
0°-40°	849.0	46.1
0°-60°	1463.5	79.5
0°-90°	1841.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1841.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	696	696	696	696	696	
5°	697	694	688	693	692	66
15°	665	661	655	660	658	187
25°	605	600	594	596	594	279
35°	525	521	514	512	506	328
45°	433	429	422	417	412	334
55°	332	330	323	317	312	296
65°	226	224	219	213	210	224
75°	122	120	118	115	112	129
85°	34	34	33	32	32	39
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	696.3	696.3	696.3	696.3	696.3
2.5°	699.1	696.9	690.5	696.9	695.7
5°	696.9	694.0	687.7	693.4	692.3
7.5°	691.7	688.8	681.9	688.2	687.1
10°	684.8	681.9	675.0	680.2	678.5
12.5°	675.6	672.7	665.9	669.9	668.7
15°	664.7	661.3	654.9	659.5	657.8
17.5°	651.5	648.6	641.7	647.5	642.3
20°	637.7	634.9	626.8	632.0	626.2
22.5°	621.7	618.2	610.2	613.6	610.7
25°	605.0	600.4	593.5	596.4	594.1
27.5°	586.6	582.0	575.2	576.3	572.3
30°	566.6	562.5	555.6	556.8	551.6
32.5°	546.5	543.0	534.4	534.4	529.2
35°	525.2	520.6	513.7	512.0	506.3
37.5°	502.3	498.2	491.9	489.1	485.6
40°	478.7	476.4	469.0	465.5	461.5
42.5°	456.3	452.3	446.0	441.4	436.8
45°	432.8	429.4	422.5	416.7	411.6
47.5°	408.1	405.3	398.4	392.1	388.0
50°	382.9	380.6	373.1	366.2	363.9
52.5°	358.2	355.3	347.9	341.5	336.9
55°	331.8	329.5	323.2	316.9	312.3
57.5°	303.7	303.7	296.8	291.0	287.6
60°	279.0	276.1	271.5	265.2	260.6
62.5°	253.1	251.4	245.1	238.8	235.3
65°	225.6	223.9	218.7	213.0	209.5
67.5°	198.6	198.0	193.4	188.9	186.6
70°	173.4	172.2	167.6	163.0	160.7
72.5°	147.5	146.4	142.4	138.3	135.5
75°	121.7	120.5	118.2	114.8	111.9
77.5°	96.4	96.4	93.6	92.4	91.3
80°	73.5	72.9	71.8	70.6	69.5
82.5°	52.8	52.2	51.1	50.5	50.5
85°	34.4	33.9	32.7	32.1	31.6
87.5°	17.8	16.6	16.1	14.9	14.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)