

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: P242555

Luminaire Tested: **S123RDR-S560D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242555
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-25)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123RDR-S560D940-X4F0-XX-UDD-F-W
Description: DEFINE 3 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1783.5 lumens
Efficiency: N/A
Efficacy: 94.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22
Luminous Opening: Rectangular (W 0.23' x L: 3.88' x H: 0')
CIE Type: Direct

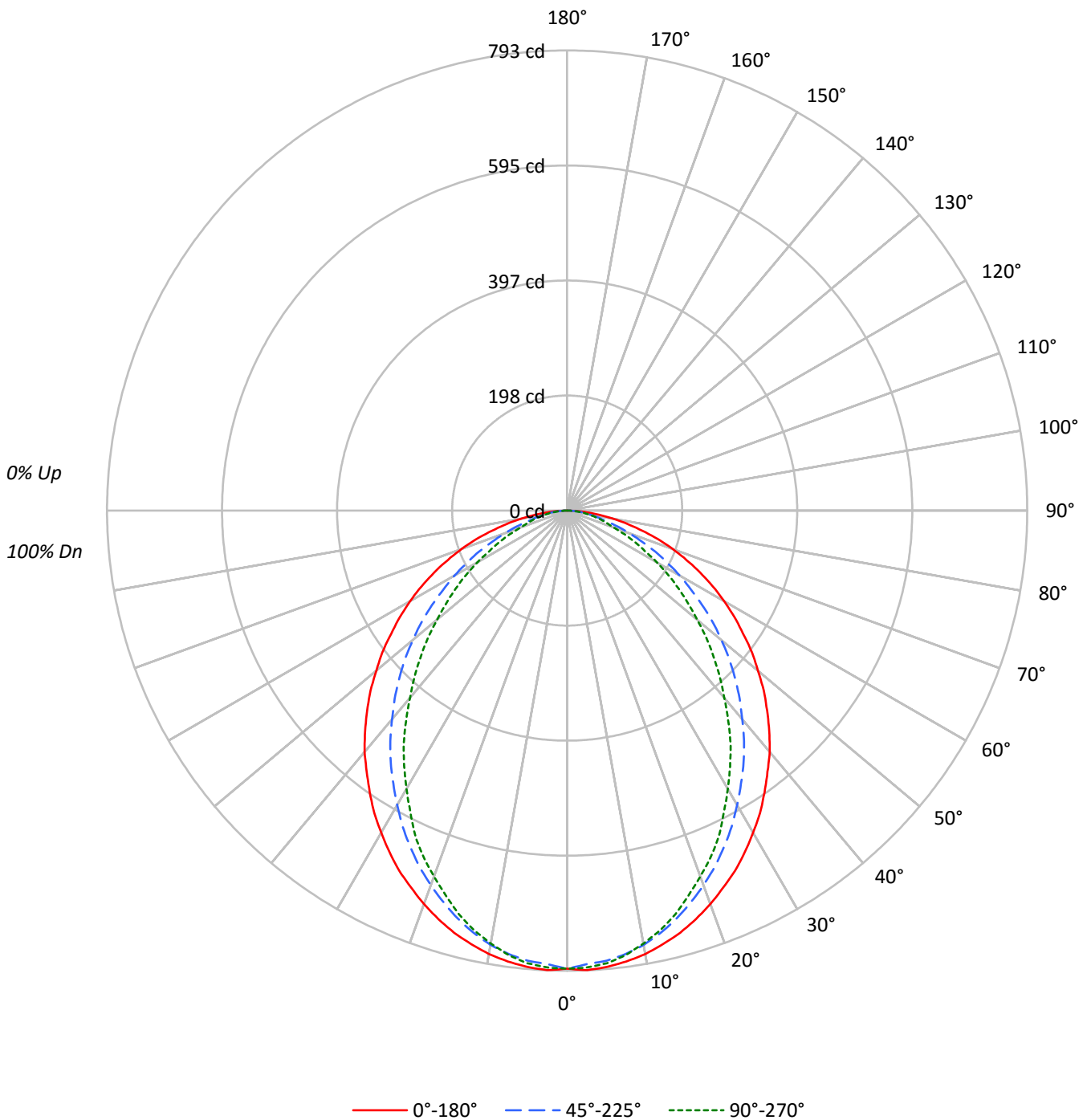
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	105	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73
3	92	82	75	68	90	81	74	68	78	72	67	75	70	66	73	68	64	62
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47
6	73	60	51	45	71	59	51	45	57	50	45	55	49	44	54	48	44	42
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	34	29	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9570	9570	9570
5°	9606	9474	9528
10°	9551	9354	9322
15°	9449	9136	9039
20°	9308	8862	8655
25°	9163	8554	8280
30°	8970	8199	7751
35°	8773	7844	7267
40°	8592	7426	6666
45°	8352	7013	6125
50°	8090	6543	5518
55°	7821	6008	4951
60°	7576	5433	4330
65°	7253	4813	3708
70°	6854	4040	2995
75°	6266	3180	2819
80°	5584	2813	2590
85°	4715	2489	2309



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.2	4.2
10°-20°	206.4	11.6
20°-30°	297.2	16.7
30°-40°	334.7	18.8
40°-50°	320.2	18.0
50°-60°	262.1	14.7
60°-70°	176.7	9.9
70°-80°	88.6	5.0
80°-90°	23.2	1.3
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°	577.9	32.4
0°-40°	912.7	51.2
0°-60°	1495.0	83.8
0°-90°	1783.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1783.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	790	790	790	790	790	
5°	790	786	779	784	783	75
15°	753	746	728	725	720	212
25°	685	669	640	626	619	315
35°	593	570	530	503	491	371
45°	487	458	409	373	357	376
55°	370	339	284	247	234	332
65°	253	218	168	136	129	250
75°	134	103	68	62	60	143
85°	34	20	18	17	17	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	789.5	789.5	789.5	789.5	789.5
2.5°	792.7	790.1	782.4	789.5	788.2
5°	789.5	786.3	778.6	784.3	783.1
7.5°	783.7	780.5	770.9	774.7	772.8
10°	776.0	771.5	760.0	760.6	757.4
12.5°	765.1	760.0	745.3	744.6	740.8
15°	753.0	745.9	728.0	724.8	720.3
17.5°	738.2	730.6	708.1	701.7	695.3
20°	721.6	711.3	687.0	678.7	671.0
22.5°	703.0	690.9	664.6	653.7	646.7
25°	685.1	669.1	639.6	626.2	619.1
27.5°	663.3	646.0	614.0	596.1	585.2
30°	640.9	621.7	585.8	564.1	553.8
32.5°	618.5	596.1	557.7	533.3	522.5
35°	592.9	569.8	530.1	502.6	491.1
37.5°	567.3	542.3	500.7	470.0	455.9
40°	543.0	514.8	469.3	436.0	421.3
42.5°	515.4	487.2	439.9	402.7	389.9
45°	487.2	458.4	409.1	372.6	357.3
47.5°	459.7	427.7	379.0	339.3	325.9
50°	429.0	398.9	347.0	307.3	292.6
52.5°	401.5	368.2	316.9	275.3	262.5
55°	370.1	338.7	284.3	247.1	234.3
57.5°	341.9	308.0	252.9	217.7	206.8
60°	312.5	277.2	224.1	189.5	178.6
62.5°	283.0	247.8	194.6	162.6	151.1
65°	252.9	217.7	167.8	136.4	129.3
67.5°	222.8	187.0	138.3	114.6	106.9
70°	193.4	158.8	114.0	91.6	84.5
72.5°	163.9	130.0	90.3	73.0	71.1
75°	133.8	103.1	67.9	61.5	60.2
77.5°	106.3	78.1	53.1	49.3	48.0
80°	80.0	53.8	40.3	38.4	37.1
82.5°	55.1	33.3	28.8	26.9	26.9
85°	33.9	19.8	17.9	16.6	16.6
87.5°	15.4	8.3	8.3	7.7	7.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)