

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: P334066

Luminaire Tested: **S123RDW-S560D840-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334066  
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: S123RDW-S560D840-4F0-1E-UDD-F  
Description: DEFINE 3 REGRESSED DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 560 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2019.8 lumens  
Efficiency: N/A  
Efficacy: 107.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Direct

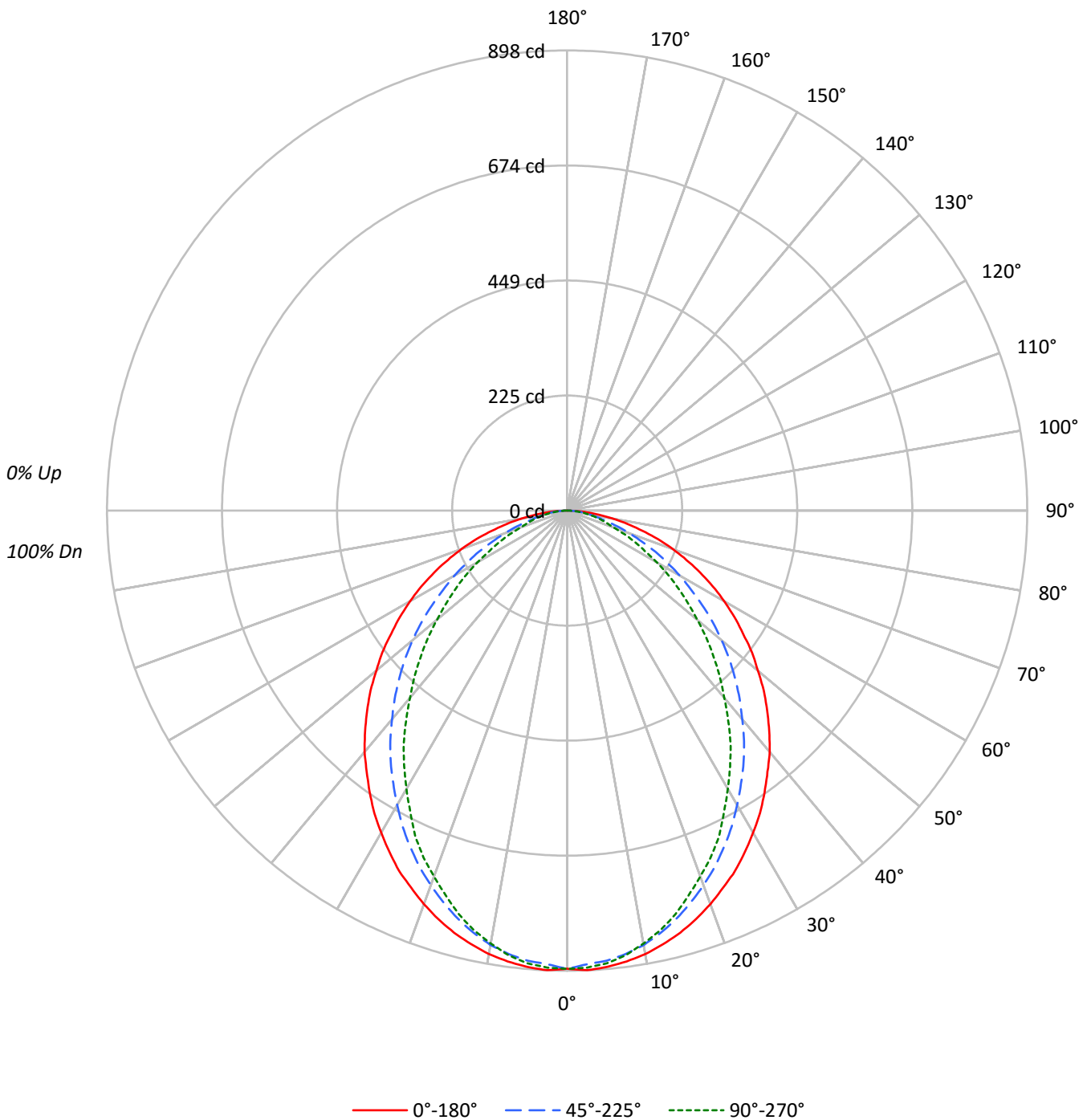
Input Watts (W): 18.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	9624	9624	9624
5°	9661	9527	9582
10°	9605	9407	9376
15°	9502	9188	9090
20°	9361	8912	8704
25°	9215	8603	8328
30°	9021	8247	7796
35°	8824	7889	7309
40°	8640	7468	6704
45°	8400	7053	6159
50°	8135	6581	5550
55°	7865	6041	4981
60°	7619	5464	4355
65°	7294	4839	3731
70°	6892	4063	3012
75°	6301	3198	2836
80°	5616	2833	2610
85°	4742	2507	2334



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.0	4.2
10°-20°	233.8	11.6
20°-30°	336.6	16.7
30°-40°	379.1	18.8
40°-50°	362.6	18.0
50°-60°	296.8	14.7
60°-70°	200.1	9.9
70°-80°	100.4	5.0
80°-90°	26.3	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°	654.5	32.4
0°-40°	1033.6	51.2
0°-60°	1693.1	83.8
0°-90°	2019.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2019.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	894	894	894	894	894	
5°	894	890	882	888	887	85
15°	853	845	824	821	816	240
25°	776	758	724	709	701	357
35°	672	645	600	569	556	420
45°	552	519	463	422	405	426
55°	419	384	322	280	265	376
65°	286	246	190	154	146	283
75°	152	117	77	70	68	161
85°	38	22	20	19	19	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	894.1	894.1	894.1	894.1	894.1
2.5°	897.7	894.8	886.1	894.1	892.6
5°	894.1	890.4	881.7	888.3	886.8
7.5°	887.5	883.9	873.0	877.4	875.2
10°	878.8	873.8	860.7	861.4	857.8
12.5°	866.5	860.7	844.0	843.3	839.0
15°	852.7	844.8	824.5	820.8	815.7
17.5°	836.1	827.4	802.0	794.7	787.5
20°	817.2	805.6	778.0	768.6	759.9
22.5°	796.2	782.4	752.7	740.3	732.4
25°	775.9	757.7	724.4	709.2	701.2
27.5°	751.2	731.6	695.4	675.1	662.8
30°	725.8	704.1	663.5	638.8	627.2
32.5°	700.5	675.1	631.6	604.0	591.7
35°	671.5	645.3	600.4	569.2	556.2
37.5°	642.4	614.2	567.0	532.2	516.3
40°	614.9	583.0	531.5	493.8	477.1
42.5°	583.7	551.8	498.2	456.1	441.6
45°	551.8	519.2	463.3	422.0	404.6
47.5°	520.6	484.4	429.3	384.3	369.1
50°	485.8	451.7	393.0	348.1	331.4
52.5°	454.6	416.9	358.9	311.8	297.3
55°	419.1	383.6	321.9	279.9	265.4
57.5°	387.2	348.8	286.4	246.5	234.2
60°	353.9	314.0	253.8	214.6	202.3
62.5°	320.5	280.6	220.4	184.2	171.1
65°	286.4	246.5	190.0	154.4	146.5
67.5°	252.3	211.7	156.6	129.8	121.1
70°	219.0	179.8	129.1	103.7	95.7
72.5°	185.6	147.2	102.2	82.7	80.5
75°	151.5	116.7	76.9	69.6	68.2
77.5°	120.4	88.5	60.2	55.8	54.4
80°	90.6	60.9	45.7	43.5	42.1
82.5°	62.4	37.7	32.6	30.5	30.5
85°	38.4	22.5	20.3	18.9	18.9
87.5°	17.4	9.4	9.4	8.7	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)