

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: P334084

Luminaire Tested: **S123RDW-S1165D935-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334084  
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-S1165D935-4F0-1E-UDD-F  
Description: DEFINE 3 REGRESSED DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 1165 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3554.6 lumens  
Efficiency: N/A  
Efficacy: 86.5 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

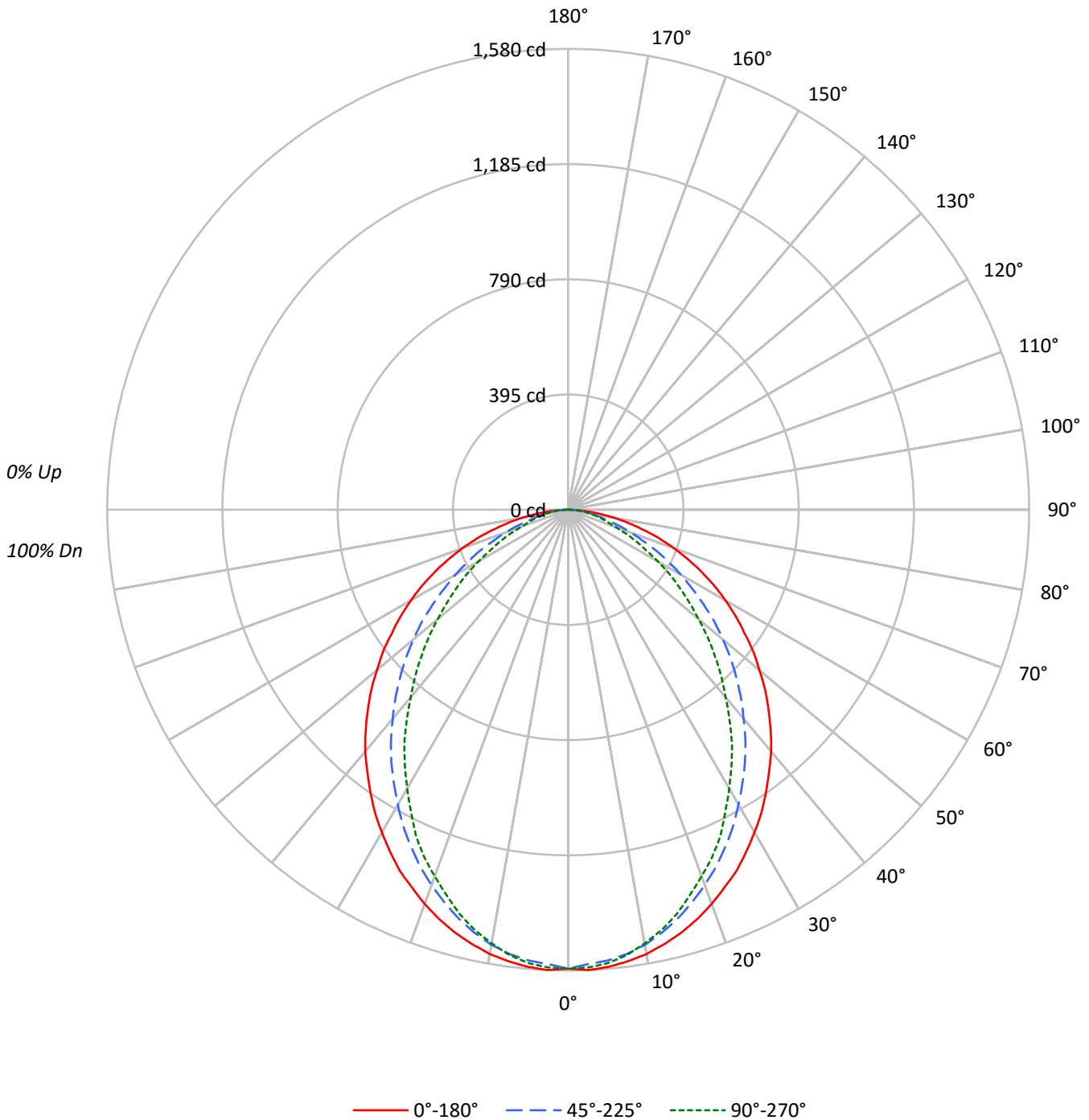
Input Watts (W): 41.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	110	105	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86					86			
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73					73			
3	92	82	75	68	90	81	74	68	78	72	67	75	70	66	73	68	64	62					62			
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54					54			
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	55	49	44	54	48	44	42					42			
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	34	29	28					28			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	16936	16936	16936
5°	17001	16766	16862
10°	16904	16556	16500
15°	16723	16168	15998
20°	16473	15684	15318
25°	16216	15140	14656
30°	15876	14512	13719
35°	15527	13884	12860
40°	15205	13144	11799
45°	14783	12412	10838
50°	14318	11581	9766
55°	13842	10633	8764
60°	13405	9614	7664
65°	12837	8514	6566
70°	12129	7147	5300
75°	11092	5627	4991
80°	9887	4984	4587
85°	8349	4409	4100



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	147.9	4.2
10°-20°	411.5	11.6
20°-30°	592.4	16.7
30°-40°	667.2	18.8
40°-50°	638.2	18.0
50°-60°	522.4	14.7
60°-70°	352.2	9.9
70°-80°	176.6	5.0
80°-90°	46.2	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°	1151.8	32.4
0°-40°	1819.0	51.2
0°-60°	2979.5	83.8
0°-90°	3554.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3554.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1573	1573	1573	1573	1573	
5°	1573	1567	1552	1563	1561	149
15°	1501	1487	1451	1444	1436	423
25°	1365	1334	1275	1248	1234	628
35°	1182	1136	1057	1002	979	740
45°	971	914	815	743	712	749
55°	738	675	567	493	467	661
65°	504	434	334	272	258	499
75°	267	205	135	122	120	284
85°	68	40	36	33	33	78
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1573.4	1573.4	1573.4	1573.4	1573.4
2.5°	1579.8	1574.7	1559.4	1573.4	1570.8
5°	1573.4	1567.0	1551.7	1563.2	1560.6
7.5°	1561.9	1555.5	1536.4	1544.0	1540.2
10°	1546.6	1537.7	1514.7	1516.0	1509.6
12.5°	1524.9	1514.7	1485.3	1484.1	1476.4
15°	1500.7	1486.6	1450.9	1444.5	1435.6
17.5°	1471.3	1456.0	1411.3	1398.6	1385.8
20°	1438.1	1417.7	1369.2	1352.6	1337.3
22.5°	1401.1	1376.9	1324.6	1302.9	1288.8
25°	1365.4	1333.5	1274.8	1248.0	1234.0
27.5°	1322.0	1287.6	1223.8	1188.0	1166.3
30°	1277.3	1239.1	1167.6	1124.2	1103.8
32.5°	1232.7	1188.0	1111.5	1063.0	1041.3
35°	1181.6	1135.7	1056.6	1001.7	978.7
37.5°	1130.6	1080.8	997.9	936.6	908.6
40°	1082.1	1026.0	935.4	869.0	839.7
42.5°	1027.2	971.1	876.7	802.6	777.1
45°	971.1	913.7	815.4	742.7	712.0
47.5°	916.2	852.4	755.4	676.3	649.5
50°	855.0	795.0	691.6	612.5	583.2
52.5°	800.1	733.7	631.7	548.7	523.2
55°	737.6	675.0	566.6	492.6	467.0
57.5°	681.4	613.8	504.0	433.9	412.2
60°	622.7	552.5	446.6	377.7	356.0
62.5°	564.0	493.8	387.9	324.1	301.2
65°	504.0	433.9	334.3	271.8	257.8
67.5°	444.1	372.6	275.6	228.4	213.1
70°	385.4	316.5	227.1	182.5	168.4
72.5°	326.7	259.0	179.9	145.5	141.6
75°	266.7	205.4	135.3	122.5	120.0
77.5°	211.8	155.7	105.9	98.3	95.7
80°	159.5	107.2	80.4	76.6	74.0
82.5°	109.7	66.4	57.4	53.6	53.6
85°	67.6	39.6	35.7	33.2	33.2
87.5°	30.6	16.6	16.6	15.3	14.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)