

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: P334069

Luminaire Tested: **S123RDS-S1165D840-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334069  
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: S123RDS-S1165D840-4F0-1E-UDD-F  
Description: DEFINE 3 REGRESSED DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 1165 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4169.2 lumens  
Efficiency: N/A  
Efficacy: 101.4 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

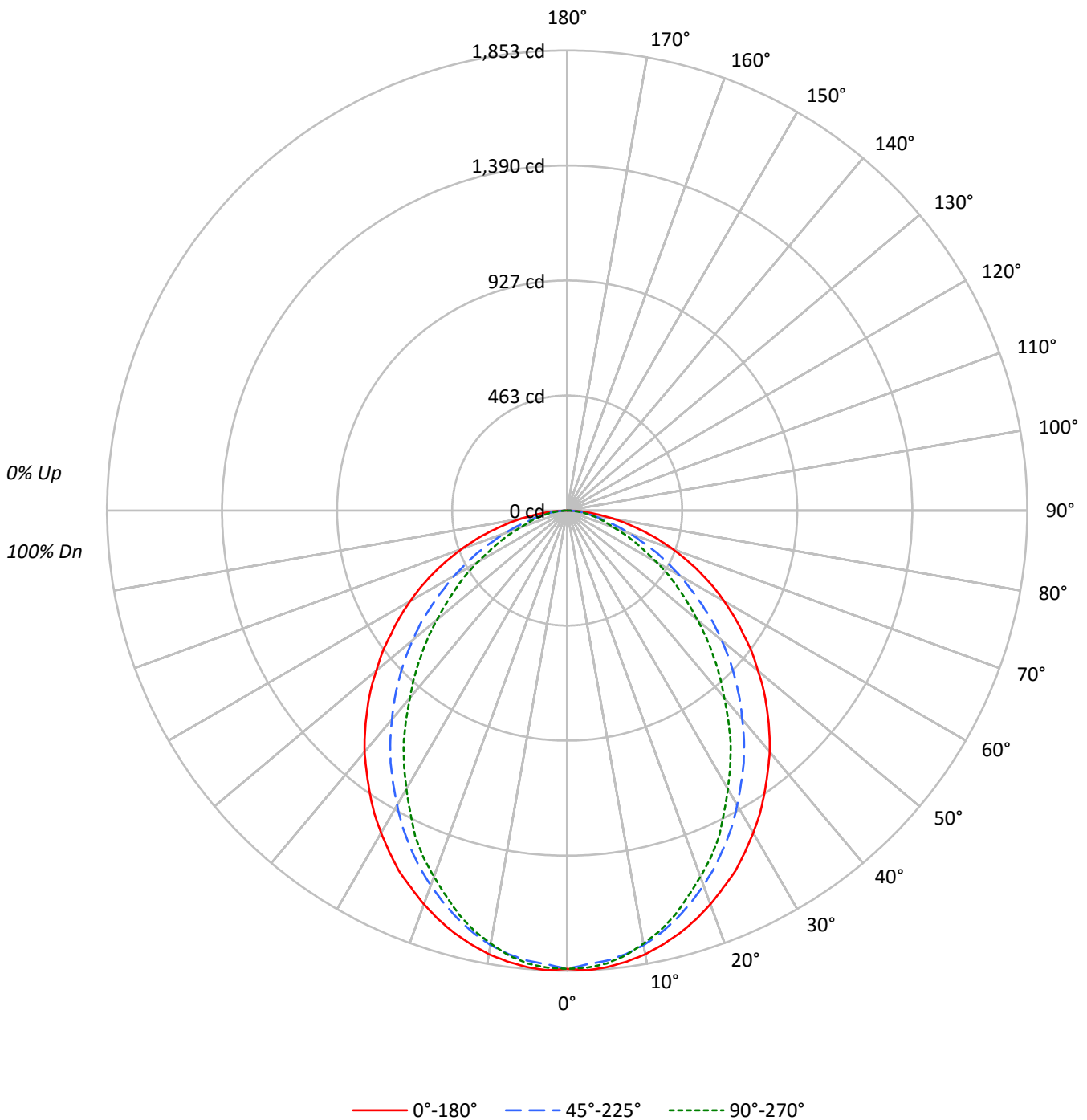
Input Watts (W): 41.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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					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°	19864	19864	19864
5°	19940	19665	19779
10°	19827	19418	19353
15°	19614	18963	18764
20°	19322	18396	17967
25°	19020	17758	17189
30°	18621	17022	16091
35°	18211	16285	15085
40°	17834	15416	13838
45°	17338	14559	12714
50°	16793	13584	11454
55°	16235	12470	10280
60°	15724	11276	8990
65°	15058	9987	7699
70°	14225	8384	6219
75°	13009	6600	5852
80°	11598	5845	5380
85°	9794	5175	4804



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	173.5	4.2
10°-20°	482.6	11.6
20°-30°	694.9	16.7
30°-40°	782.5	18.8
40°-50°	748.5	18.0
50°-60°	612.7	14.7
60°-70°	413.1	9.9
70°-80°	207.2	5.0
80°-90°	54.2	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°	1350.9	32.4
0°-40°	2133.5	51.2
0°-60°	3494.7	83.8
0°-90°	4169.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4169.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1845	1845	1845	1845	1845	
5°	1845	1838	1820	1834	1830	175
15°	1760	1744	1702	1694	1684	496
25°	1602	1564	1495	1464	1447	737
35°	1386	1332	1239	1175	1148	867
45°	1139	1072	956	871	835	879
55°	865	792	664	578	548	776
65°	591	509	392	319	302	585
75°	313	241	159	144	141	333
85°	79	46	42	39	39	92
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1845.4	1845.4	1845.4	1845.4	1845.4
2.5°	1852.9	1846.9	1829.0	1845.4	1842.4
5°	1845.4	1837.9	1820.0	1833.5	1830.5
7.5°	1832.0	1824.5	1802.0	1811.0	1806.5
10°	1814.0	1803.5	1776.6	1778.1	1770.6
12.5°	1788.6	1776.6	1742.2	1740.7	1731.7
15°	1760.1	1743.7	1701.7	1694.3	1683.8
17.5°	1725.7	1707.7	1655.4	1640.4	1625.4
20°	1686.8	1662.8	1606.0	1586.5	1568.5
22.5°	1643.4	1614.9	1553.6	1528.1	1511.7
25°	1601.5	1564.1	1495.2	1463.8	1447.3
27.5°	1550.6	1510.2	1435.3	1393.4	1368.0
30°	1498.2	1453.3	1369.5	1318.6	1294.6
32.5°	1445.8	1393.4	1303.6	1246.8	1221.3
35°	1385.9	1332.1	1239.3	1174.9	1148.0
37.5°	1326.1	1267.7	1170.4	1098.6	1065.7
40°	1269.2	1203.3	1097.1	1019.3	984.8
42.5°	1204.8	1139.0	1028.2	941.4	911.5
45°	1139.0	1071.6	956.4	871.1	835.2
47.5°	1074.6	999.8	886.0	793.3	761.8
50°	1002.8	932.4	811.2	718.4	684.0
52.5°	938.4	860.6	740.9	643.6	613.6
55°	865.1	791.8	664.5	577.7	547.8
57.5°	799.2	719.9	591.2	508.9	483.4
60°	730.4	648.1	523.8	443.0	417.6
62.5°	661.5	579.2	455.0	380.2	353.2
65°	591.2	508.9	392.1	318.8	302.3
67.5°	520.9	437.0	323.3	267.9	249.9
70°	452.0	371.2	266.4	214.0	197.6
72.5°	383.2	303.8	211.0	170.6	166.1
75°	312.8	241.0	158.7	143.7	140.7
77.5°	248.5	182.6	124.2	115.2	112.3
80°	187.1	125.7	94.3	89.8	86.8
82.5°	128.7	77.8	67.4	62.9	62.9
85°	79.3	46.4	41.9	38.9	38.9
87.5°	35.9	19.5	19.5	18.0	16.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)