

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: P242543

Luminaire Tested: **S123RDR-S1165D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242543
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-S1165D840-X4F0-XX-UDD-F-W
Description: DEFINE 3 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 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 0.23' x L: 3.88' x H: 0')
CIE Type: Direct

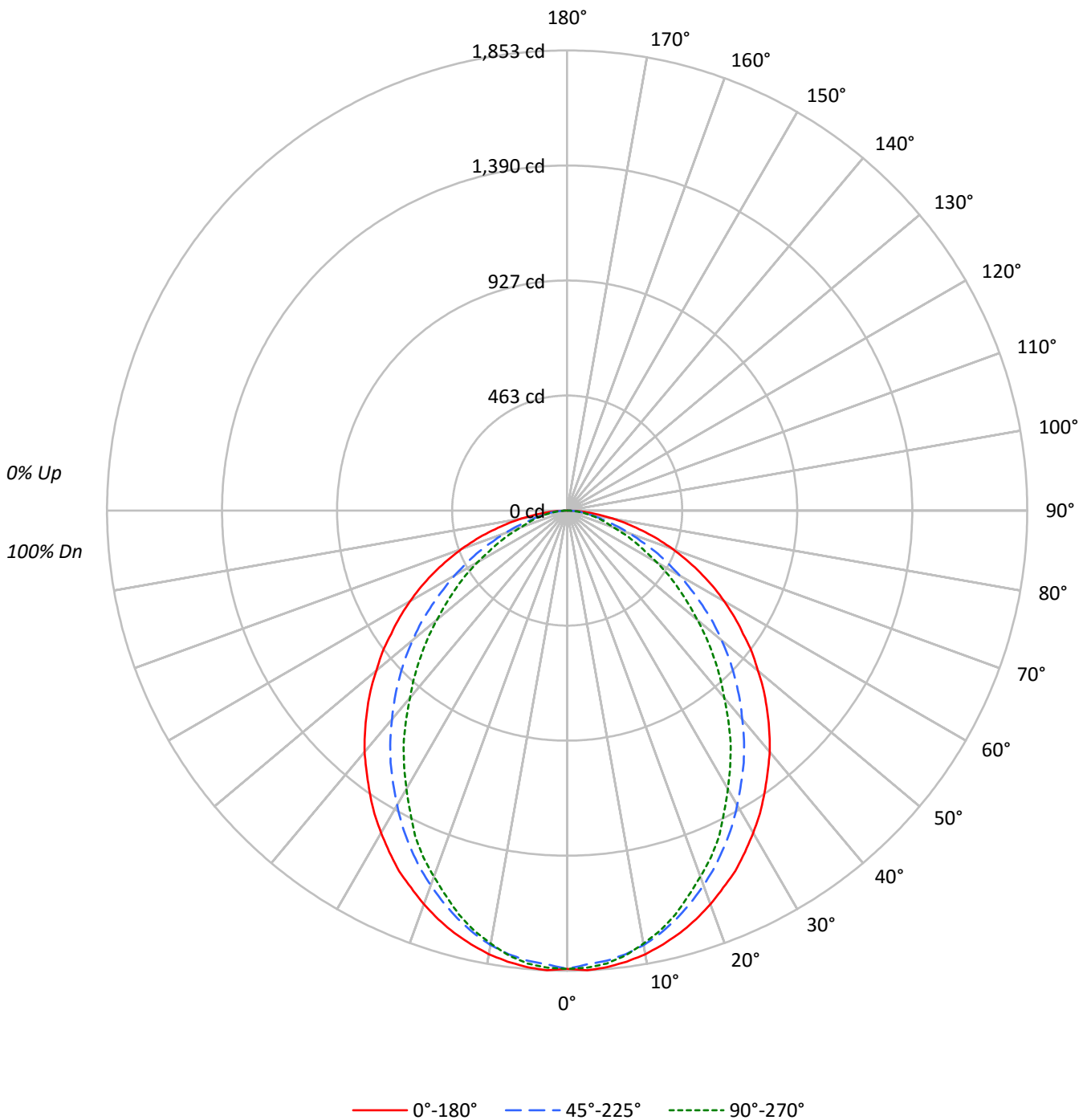
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P242543

CATALOG NUMBER: S123RDR-S1165D840-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





TEST NUMBER: P242543

CATALOG NUMBER: S123RDR-S1165D840-X4F0-XX-UDD-F-W

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				
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°	22369	22369	22369
5°	22454	22145	22273
10°	22327	21867	21793
15°	22087	21354	21130
20°	21758	20716	20232
25°	21419	19997	19357
30°	20969	19168	18120
35°	20508	18338	16987
40°	20083	17360	15583
45°	19525	16395	14317
50°	18910	15297	12898
55°	18282	14043	11576
60°	17707	12698	10124
65°	16956	11246	8670
70°	16019	9441	7003
75°	14649	7432	6589
80°	13060	6582	6059
85°	11029	5827	5410



TEST NUMBER: P242543

CATALOG NUMBER: S123RDR-S1165D840-X4F0-XX-UDD-F-W

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	



TEST NUMBER: P242543

CATALOG NUMBER: S123RDR-S1165D840-X4F0-XX-UDD-F-W

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)