

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: P242548

Luminaire Tested: **S123RDR-S1165D930-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242548
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-S1165D930-X4F0-XX-UDD-F-W
Description: DEFINE 3 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3365.9 lumens
Efficiency: N/A
Efficacy: 81.9 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

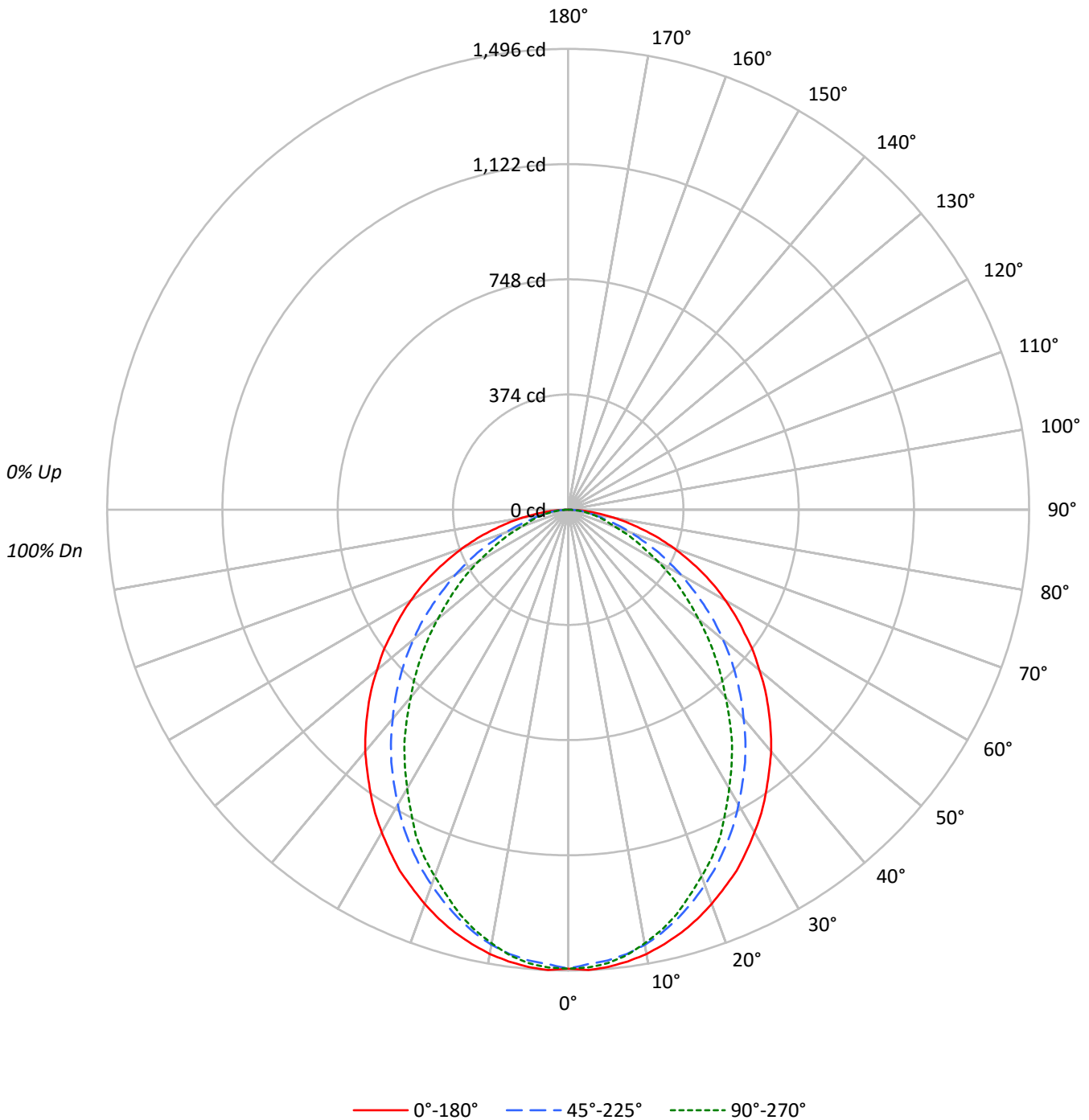
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	18059	18059	18059
5°	18128	17878	17981
10°	18025	17654	17595
15°	17832	17241	17059
20°	17566	16724	16334
25°	17292	16144	15628
30°	16929	15474	14629
35°	16557	14805	13714
40°	16214	14015	12581
45°	15762	13235	11559
50°	15267	12350	10413
55°	14759	11338	9347
60°	14296	10252	8172
65°	13690	9080	7001
70°	12932	7623	5653
75°	11825	5999	5320
80°	10540	5312	4893
85°	8901	4701	4367



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.1	4.2
10°-20°	389.6	11.6
20°-30°	561.0	16.7
30°-40°	631.7	18.8
40°-50°	604.3	18.0
50°-60°	494.7	14.7
60°-70°	333.5	9.9
70°-80°	167.3	5.0
80°-90°	43.7	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°	1090.7	32.4
0°-40°	1722.4	51.2
0°-60°	2821.4	83.8
0°-90°	3365.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3365.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1490	1490	1490	1490	1490	
5°	1490	1484	1469	1480	1478	141
15°	1421	1408	1374	1368	1359	400
25°	1293	1263	1207	1182	1168	595
35°	1119	1075	1000	948	927	700
45°	920	865	772	703	674	710
55°	698	639	536	466	442	626
65°	477	411	317	257	244	472
75°	252	194	128	116	114	269
85°	64	38	34	31	31	74
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1489.9	1489.9	1489.9	1489.9	1489.9
2.5°	1495.9	1491.1	1476.6	1489.9	1487.5
5°	1489.9	1483.8	1469.3	1480.2	1477.8
7.5°	1479.0	1473.0	1454.8	1462.1	1458.5
10°	1464.5	1456.0	1434.3	1435.5	1429.5
12.5°	1444.0	1434.3	1406.5	1405.3	1398.0
15°	1421.0	1407.7	1373.9	1367.8	1359.4
17.5°	1393.2	1378.7	1336.4	1324.3	1312.3
20°	1361.8	1342.5	1296.5	1280.8	1266.3
22.5°	1326.8	1303.8	1254.3	1233.7	1220.4
25°	1292.9	1262.7	1207.1	1181.8	1168.5
27.5°	1251.8	1219.2	1158.8	1125.0	1104.4
30°	1209.5	1173.3	1105.6	1064.5	1045.2
32.5°	1167.3	1125.0	1052.5	1006.5	986.0
35°	1118.9	1075.4	1000.5	948.5	926.8
37.5°	1070.6	1023.5	944.9	886.9	860.3
40°	1024.7	971.5	885.7	822.9	795.1
42.5°	972.7	919.5	830.1	760.0	735.9
45°	919.5	865.2	772.1	703.3	674.3
47.5°	867.6	807.2	715.3	640.4	615.0
50°	809.6	752.8	654.9	580.0	552.2
52.5°	757.6	694.8	598.1	519.6	495.4
55°	698.4	639.2	536.5	466.4	442.3
57.5°	645.3	581.2	477.3	410.8	390.3
60°	589.7	523.2	422.9	357.7	337.1
62.5°	534.1	467.6	367.3	306.9	285.2
65°	477.3	410.8	316.6	257.4	244.1
67.5°	420.5	352.8	261.0	216.3	201.8
70°	364.9	299.7	215.1	172.8	159.5
72.5°	309.3	245.3	170.4	137.8	134.1
75°	252.5	194.5	128.1	116.0	113.6
77.5°	200.6	147.4	100.3	93.0	90.6
80°	151.0	101.5	76.1	72.5	70.1
82.5°	103.9	62.8	54.4	50.8	50.8
85°	64.0	37.5	33.8	31.4	31.4
87.5°	29.0	15.7	15.7	14.5	13.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)