

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: P243310

Luminaire Tested: **S123DR-H1165D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243310
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-49)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DR-H1165D935-X4F0-XX-UDD-F-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3886.3 lumens
Efficiency: N/A
Efficacy: 103.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.23' x L: 3.88' x H: 0')
CIE Type: Direct

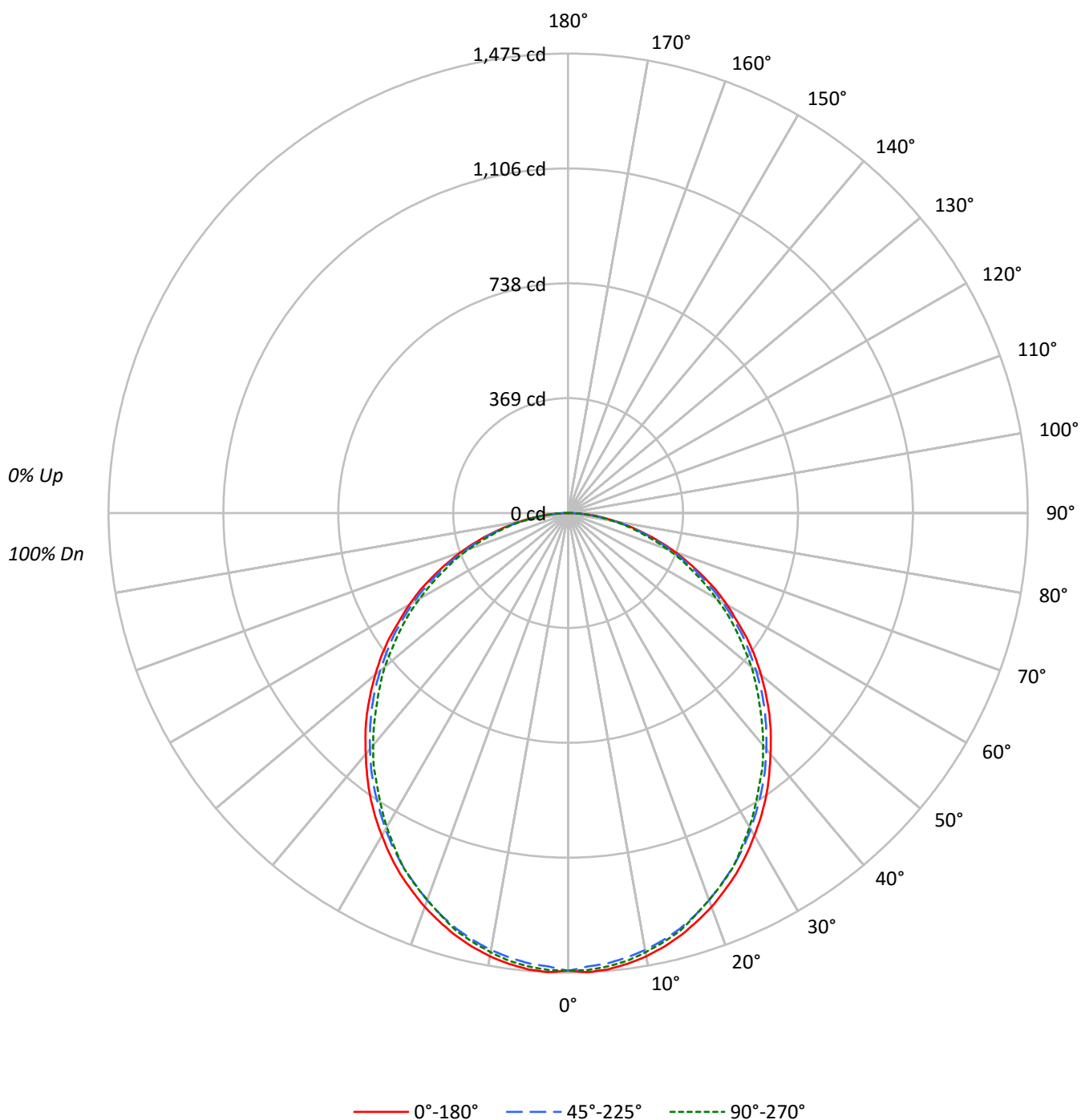
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	94	97	94	91		94	91	89		90
2	99	91	84	78	96	89	83	77	85	80	76		82	78	74		79
3	90	80	72	65	88	78	71	65	75	69	64		73	67	62		70
4	83	71	62	55	80	70	61	55	67	60	54		65	59	54		63
5	76	63	54	48	74	62	54	48	60	53	47		58	52	47		56
6	70	57	48	42	69	56	48	42	54	47	41		53	46	41		51
7	65	52	43	37	64	51	43	37	50	42	37		48	41	36		47
8	61	47	39	33	59	47	39	33	45	38	33		44	37	33		43
9	57	44	35	30	56	43	35	30	42	35	30		41	34	29		40
10	53	40	32	27	52	40	32	27	39	32	27		38	31	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17807	17807	17807
5°	17890	17654	17772
10°	17783	17531	17619
15°	17600	17341	17416
20°	17356	17059	17044
25°	17072	16749	16765
30°	16731	16408	16290
35°	16398	16039	15806
40°	15983	15657	15407
45°	15654	15280	14886
50°	15233	14844	14479
55°	14793	14408	13922
60°	14269	13886	13328
65°	13652	13234	12680
70°	12964	12532	12018
75°	12027	11685	11062
80°	10820	10568	10226
85°	10111	9596	9262

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.6	3.6
10°-20°	391.9	10.1
20°-30°	580.3	14.9
30°-40°	680.5	17.5
40°-50°	688.0	17.7
50°-60°	608.5	15.7
60°-70°	457.0	11.8
70°-80°	263.4	6.8
80°-90°	78.1	2.0
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°	1110.8	28.6
0°-40°	1791.3	46.1
0°-60°	3087.8	79.5
0°-90°	3886.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3886.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1469	1469	1469	1469	1469	
5°	1470	1464	1451	1463	1461	139
15°	1402	1395	1382	1392	1388	395
25°	1276	1267	1252	1258	1254	588
35°	1108	1098	1084	1080	1068	692
45°	913	906	891	879	868	704
55°	700	695	682	668	659	625
65°	476	472	461	449	442	472
75°	257	254	250	242	236	272
85°	73	72	69	68	67	81
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1469.1	1469.1	1469.1	1469.1	1469.1
2.5°	1475.1	1470.3	1457.0	1470.3	1467.9
5°	1470.3	1464.2	1450.9	1463.0	1460.6
7.5°	1459.4	1453.3	1438.8	1452.1	1449.7
10°	1444.8	1438.8	1424.3	1435.2	1431.5
12.5°	1425.5	1419.4	1404.9	1413.4	1410.9
15°	1402.5	1395.2	1381.9	1391.6	1387.9
17.5°	1374.6	1368.5	1354.0	1366.1	1355.2
20°	1345.5	1339.5	1322.5	1333.4	1321.3
22.5°	1311.6	1304.4	1287.4	1294.7	1288.6
25°	1276.5	1266.8	1252.3	1258.3	1253.5
27.5°	1237.7	1228.1	1213.5	1215.9	1207.5
30°	1195.4	1186.9	1172.3	1174.8	1163.9
32.5°	1153.0	1145.7	1127.5	1127.5	1116.6
35°	1108.2	1098.5	1083.9	1080.3	1068.2
37.5°	1059.7	1051.2	1037.9	1031.9	1024.6
40°	1010.1	1005.2	989.5	982.2	973.7
42.5°	962.8	954.3	941.0	931.3	921.6
45°	913.2	905.9	891.4	879.3	868.4
47.5°	861.1	855.0	840.5	827.2	818.7
50°	807.8	803.0	787.2	772.7	767.8
52.5°	755.7	749.7	733.9	720.6	710.9
55°	700.0	695.2	681.8	668.5	658.8
57.5°	640.7	640.7	626.1	614.0	606.8
60°	588.6	582.5	572.8	559.5	549.8
62.5°	534.1	530.5	517.1	503.8	496.6
65°	476.0	472.3	461.4	449.3	442.1
67.5°	419.0	417.8	408.1	398.5	393.6
70°	365.8	363.3	353.6	344.0	339.1
72.5°	311.3	308.8	300.4	291.9	285.8
75°	256.8	254.3	249.5	242.2	236.2
77.5°	203.5	203.5	197.4	195.0	192.6
80°	155.0	153.8	151.4	149.0	146.5
82.5°	111.4	110.2	107.8	106.6	106.6
85°	72.7	71.5	69.0	67.8	66.6
87.5°	37.5	35.1	33.9	31.5	30.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)