

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: P243286

Luminaire Tested: **S123DR-H1165D927-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243286
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-H1165D927-X4F0-XX-UDD-F-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3575.7 lumens
Efficiency: N/A
Efficacy: 94.8 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

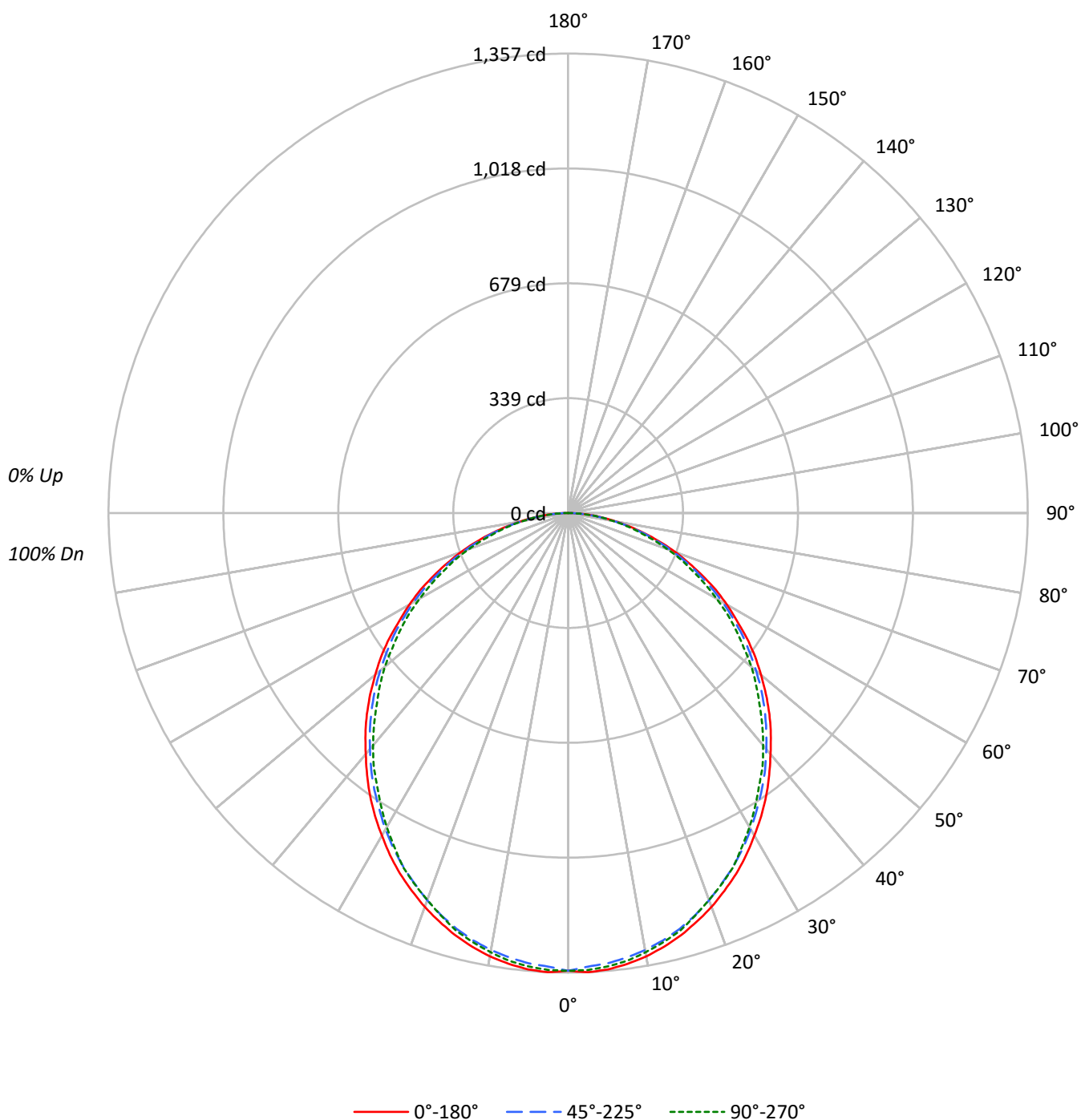
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84		
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70		
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	59		
4	83	71	62	55	80	70	61	55	67	60	54	65	59	54	63	57	53	51		
5	76	63	54	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44		
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39		
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34		
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30		
9	57	44	35	30	56	43	35	30	42	35	30	41	34	29	40	34	29	27		
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16383	16383	16383
5°	16460	16242	16351
10°	16363	16129	16211
15°	16193	15955	16025
20°	15969	15696	15681
25°	15708	15410	15425
30°	15393	15096	14987
35°	15087	14757	14543
40°	14704	14405	14176
45°	14403	14058	13696
50°	14015	13658	13323
55°	13612	13257	12811
60°	13127	12778	12264
65°	12560	12175	11665
70°	11926	11532	11057
75°	11062	10748	10177
80°	9954	9724	9409
85°	9304	8831	8525

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.5	3.6
10°-20°	360.6	10.1
20°-30°	533.9	14.9
30°-40°	626.1	17.5
40°-50°	633.0	17.7
50°-60°	559.8	15.7
60°-70°	420.5	11.8
70°-80°	242.3	6.8
80°-90°	71.9	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°	1022.0	28.6
0°-40°	1648.2	46.1
0°-60°	2841.0	79.5
0°-90°	3575.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3575.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1352	1352	1352	1352	1352	
5°	1353	1347	1335	1346	1344	128
15°	1290	1284	1271	1280	1277	364
25°	1174	1166	1152	1158	1153	541
35°	1020	1011	997	994	983	637
45°	840	834	820	809	799	648
55°	644	640	627	615	606	575
65°	438	435	424	413	407	434
75°	236	234	230	223	217	250
85°	67	66	64	62	61	75
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1351.6	1351.6	1351.6	1351.6	1351.6
2.5°	1357.2	1352.8	1340.5	1352.8	1350.5
5°	1352.8	1347.2	1334.9	1346.1	1343.8
7.5°	1342.7	1337.2	1323.8	1336.0	1333.8
10°	1329.4	1323.8	1310.4	1320.4	1317.1
12.5°	1311.5	1306.0	1292.6	1300.4	1298.2
15°	1290.4	1283.7	1271.4	1280.3	1277.0
17.5°	1264.7	1259.2	1245.8	1256.9	1246.9
20°	1238.0	1232.4	1216.8	1226.8	1215.7
22.5°	1206.8	1200.1	1184.5	1191.2	1185.6
25°	1174.5	1165.6	1152.2	1157.8	1153.3
27.5°	1138.8	1129.9	1116.5	1118.8	1111.0
30°	1099.8	1092.0	1078.6	1080.9	1070.8
32.5°	1060.8	1054.1	1037.4	1037.4	1027.4
35°	1019.6	1010.7	997.3	994.0	982.8
37.5°	975.0	967.2	955.0	949.4	942.7
40°	929.3	924.9	910.4	903.7	895.9
42.5°	885.9	878.1	865.8	856.9	848.0
45°	840.2	833.5	820.1	809.0	799.0
47.5°	792.3	786.7	773.3	761.1	753.3
50°	743.2	738.8	724.3	710.9	706.5
52.5°	695.3	689.8	675.3	663.0	654.1
55°	644.1	639.6	627.3	615.1	606.2
57.5°	589.5	589.5	576.1	564.9	558.3
60°	541.5	536.0	527.1	514.8	505.9
62.5°	491.4	488.1	475.8	463.5	456.9
65°	437.9	434.6	424.5	413.4	406.7
67.5°	385.5	384.4	375.5	366.6	362.1
70°	336.5	334.3	325.4	316.5	312.0
72.5°	286.4	284.1	276.3	268.5	263.0
75°	236.2	234.0	229.5	222.9	217.3
77.5°	187.2	187.2	181.6	179.4	177.2
80°	142.6	141.5	139.3	137.1	134.8
82.5°	102.5	101.4	99.2	98.1	98.1
85°	66.9	65.7	63.5	62.4	61.3
87.5°	34.5	32.3	31.2	29.0	27.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)