

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: P243299

Luminaire Tested: **S123DR-H1000D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243299
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-H1000D840-X4F0-XX-UDD-F-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3902.0 lumens
Efficiency: N/A
Efficacy: 123.9 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

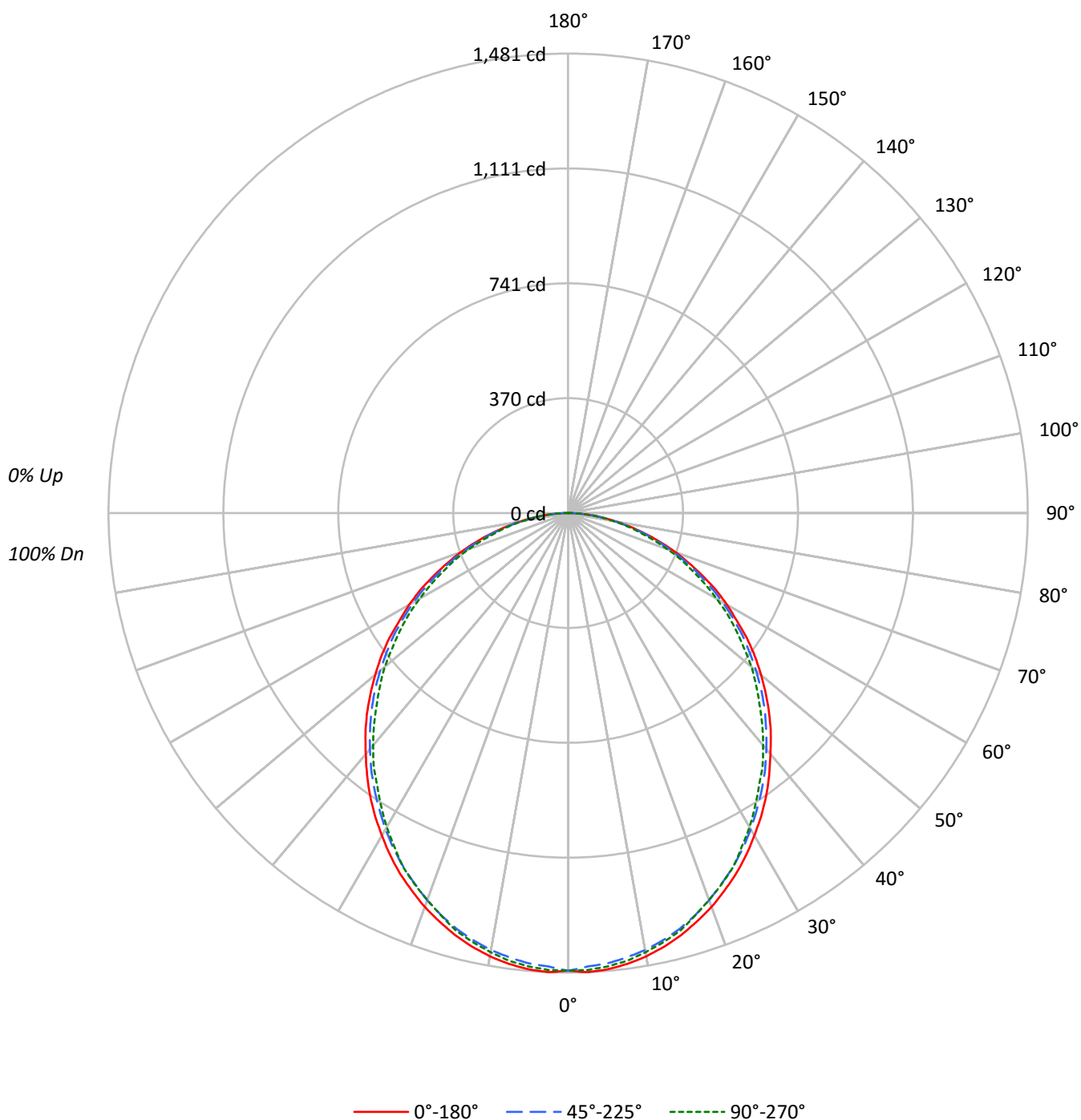
Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17879	17879	17879
5°	17962	17724	17844
10°	17856	17601	17691
15°	17670	17410	17487
20°	17427	17127	17112
25°	17140	16815	16832
30°	16798	16475	16356
35°	16463	16104	15870
40°	16046	15720	15469
45°	15716	15342	14946
50°	15295	14905	14537
55°	14852	14467	13979
60°	14327	13944	13384
65°	13707	13288	12729
70°	13014	12585	12067
75°	12073	11732	11104
80°	10861	10610	10268
85°	10153	9638	9304

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.2	3.6
10°-20°	393.5	10.1
20°-30°	582.6	14.9
30°-40°	683.3	17.5
40°-50°	690.8	17.7
50°-60°	610.9	15.7
60°-70°	458.8	11.8
70°-80°	264.4	6.8
80°-90°	78.4	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°	1115.3	28.6
0°-40°	1798.6	46.1
0°-60°	3100.3	79.5
0°-90°	3902.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3902.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1475	1475	1475	1475	1475	
5°	1476	1470	1457	1469	1466	140
15°	1408	1401	1387	1397	1394	397
25°	1282	1272	1257	1263	1258	590
35°	1113	1103	1088	1085	1072	695
45°	917	910	895	883	872	707
55°	703	698	685	671	662	627
65°	478	474	463	451	444	474
75°	258	255	250	243	237	273
85°	73	72	69	68	67	82
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1475.0	1475.0	1475.0	1475.0	1475.0
2.5°	1481.1	1476.2	1462.8	1476.2	1473.8
5°	1476.2	1470.1	1456.7	1468.9	1466.5
7.5°	1465.3	1459.2	1444.6	1458.0	1455.5
10°	1450.7	1444.6	1430.0	1440.9	1437.3
12.5°	1431.2	1425.1	1410.5	1419.0	1416.6
15°	1408.1	1400.8	1387.4	1397.2	1393.5
17.5°	1380.1	1374.1	1359.5	1371.6	1360.7
20°	1351.0	1344.9	1327.8	1338.8	1326.6
22.5°	1316.9	1309.6	1292.6	1299.9	1293.8
25°	1281.6	1271.9	1257.3	1263.4	1258.5
27.5°	1242.7	1233.0	1218.4	1220.8	1212.3
30°	1200.2	1191.7	1177.1	1179.5	1168.6
32.5°	1157.6	1150.3	1132.1	1132.1	1121.1
35°	1112.6	1102.9	1088.3	1084.7	1072.5
37.5°	1064.0	1055.5	1042.1	1036.0	1028.7
40°	1014.1	1009.3	993.5	986.2	977.6
42.5°	966.7	958.2	944.8	935.1	925.4
45°	916.8	909.6	895.0	882.8	871.9
47.5°	864.6	858.5	843.9	830.5	822.0
50°	811.1	806.2	790.4	775.8	770.9
52.5°	758.8	752.7	736.9	723.5	713.8
55°	702.8	698.0	684.6	671.2	661.5
57.5°	643.3	643.3	628.7	616.5	609.2
60°	591.0	584.9	575.2	561.8	552.1
62.5°	536.2	532.6	519.2	505.8	498.6
65°	477.9	474.2	463.3	451.1	443.8
67.5°	420.7	419.5	409.8	400.1	395.2
70°	367.2	364.8	355.1	345.3	340.5
72.5°	312.5	310.1	301.6	293.1	287.0
75°	257.8	255.4	250.5	243.2	237.1
77.5°	204.3	204.3	198.2	195.8	193.3
80°	155.6	154.4	152.0	149.6	147.1
82.5°	111.9	110.7	108.2	107.0	107.0
85°	73.0	71.7	69.3	68.1	66.9
87.5°	37.7	35.3	34.0	31.6	30.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)