

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: P243315

Luminaire Tested: **S123DR-H1165D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243315
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-H1165D940-X4F0-XX-UDD-F-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4024.9 lumens
Efficiency: N/A
Efficacy: 106.8 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

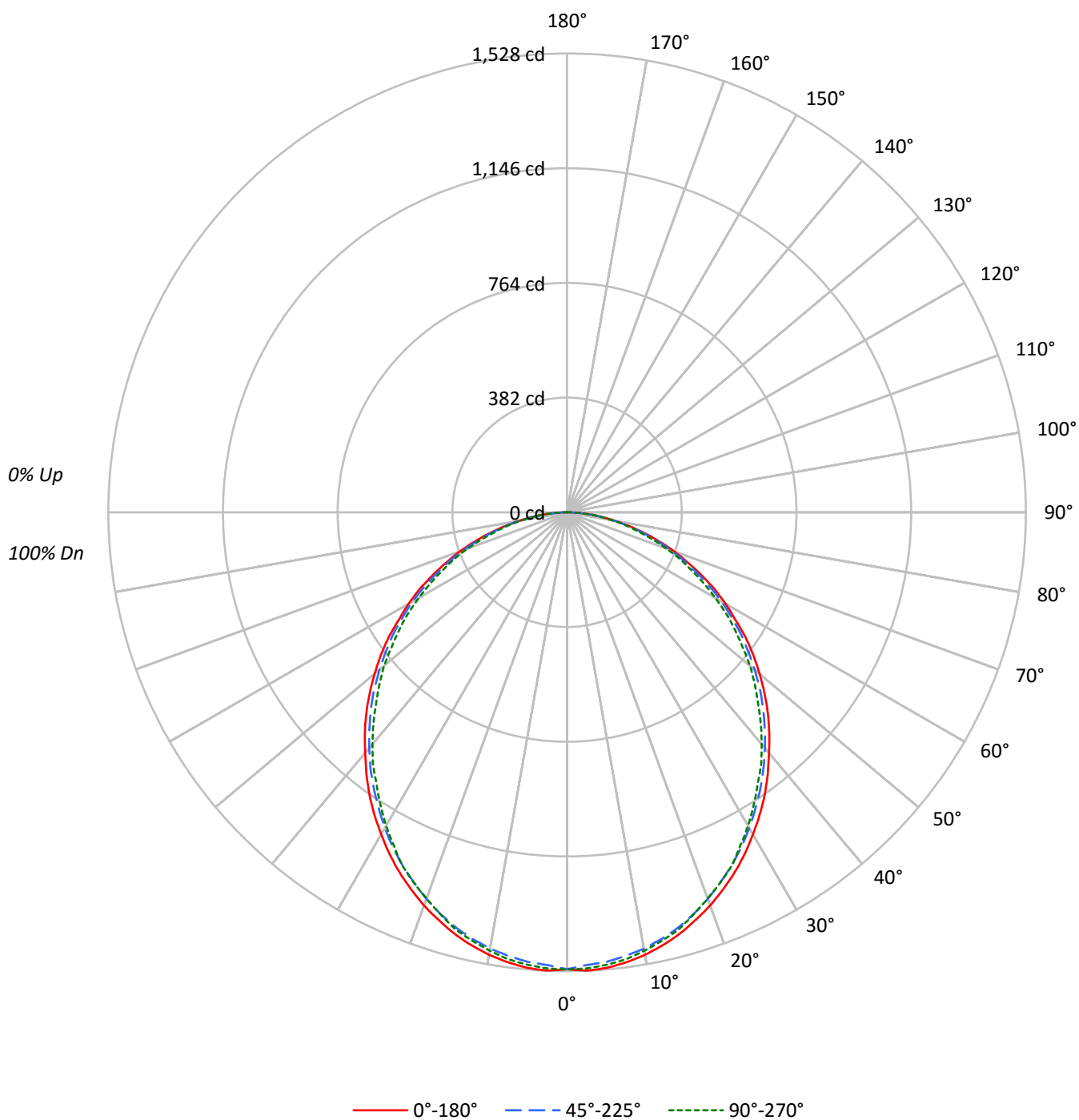
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18442	18442	18442
5°	18527	18283	18406
10°	18418	18156	18248
15°	18227	17960	18038
20°	17975	17668	17651
25°	17681	17345	17363
30°	17328	16994	16871
35°	16983	16611	16370
40°	16553	16216	15958
45°	16211	15825	15416
50°	15776	15374	14995
55°	15321	14924	14419
60°	14778	14383	13806
65°	14137	13707	13130
70°	13425	12982	12447
75°	12453	12102	11455
80°	11203	10945	10596
85°	10472	9944	9596

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.5	3.6
10°-20°	405.9	10.1
20°-30°	601.0	14.9
30°-40°	704.8	17.5
40°-50°	712.5	17.7
50°-60°	630.2	15.7
60°-70°	473.3	11.8
70°-80°	272.8	6.8
80°-90°	80.9	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°	1150.4	28.6
0°-40°	1855.2	46.1
0°-60°	3197.9	79.5
0°-90°	4024.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4024.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1522	1522	1522	1522	1522	
5°	1523	1516	1503	1515	1513	144
15°	1452	1445	1431	1441	1437	409
25°	1322	1312	1297	1303	1298	609
35°	1148	1138	1123	1119	1106	717
45°	946	938	923	911	899	729
55°	725	720	706	692	682	647
65°	493	489	478	465	458	488
75°	266	263	258	251	245	282
85°	75	74	72	70	69	84
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1521.5	1521.5	1521.5	1521.5	1521.5
2.5°	1527.7	1522.7	1508.9	1522.7	1520.2
5°	1522.7	1516.4	1502.6	1515.2	1512.7
7.5°	1511.4	1505.2	1490.1	1503.9	1501.4
10°	1496.4	1490.1	1475.1	1486.3	1482.6
12.5°	1476.3	1470.0	1455.0	1463.8	1461.3
15°	1452.5	1444.9	1431.2	1441.2	1437.4
17.5°	1423.6	1417.4	1402.3	1414.8	1403.6
20°	1393.5	1387.3	1369.7	1381.0	1368.4
22.5°	1358.4	1350.9	1333.3	1340.8	1334.6
25°	1322.0	1312.0	1296.9	1303.2	1298.2
27.5°	1281.9	1271.9	1256.8	1259.3	1250.5
30°	1238.0	1229.2	1214.2	1216.7	1205.4
32.5°	1194.1	1186.6	1167.8	1167.8	1156.5
35°	1147.7	1137.6	1122.6	1118.8	1106.3
37.5°	1097.5	1088.7	1074.9	1068.7	1061.1
40°	1046.1	1041.1	1024.8	1017.2	1008.5
42.5°	997.2	988.4	974.6	964.6	954.5
45°	945.7	938.2	923.2	910.6	899.3
47.5°	891.8	885.5	870.5	856.7	847.9
50°	836.6	831.6	815.3	800.2	795.2
52.5°	782.7	776.4	760.1	746.3	736.3
55°	725.0	720.0	706.2	692.4	682.3
57.5°	663.5	663.5	648.5	635.9	628.4
60°	609.6	603.3	593.3	579.5	569.5
62.5°	553.1	549.4	535.6	521.8	514.3
65°	492.9	489.2	477.9	465.3	457.8
67.5°	434.0	432.7	422.7	412.7	407.6
70°	378.8	376.3	366.3	356.2	351.2
72.5°	322.4	319.8	311.1	302.3	296.0
75°	265.9	263.4	258.4	250.9	244.6
77.5°	210.7	210.7	204.5	201.9	199.4
80°	160.5	159.3	156.8	154.3	151.8
82.5°	115.4	114.1	111.6	110.4	110.4
85°	75.3	74.0	71.5	70.2	69.0
87.5°	38.9	36.4	35.1	32.6	31.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)