

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: P242431

Luminaire Tested: **S123DR-S1165D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242431
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-11)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DR-S1165D830-X4F0-XX-UDD-F-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4228.2 lumens
Efficiency: N/A
Efficacy: 102.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3
Luminous Opening: Rectangular (W 0.23' x L: 3.88' x H: 0')
CIE Type: Direct

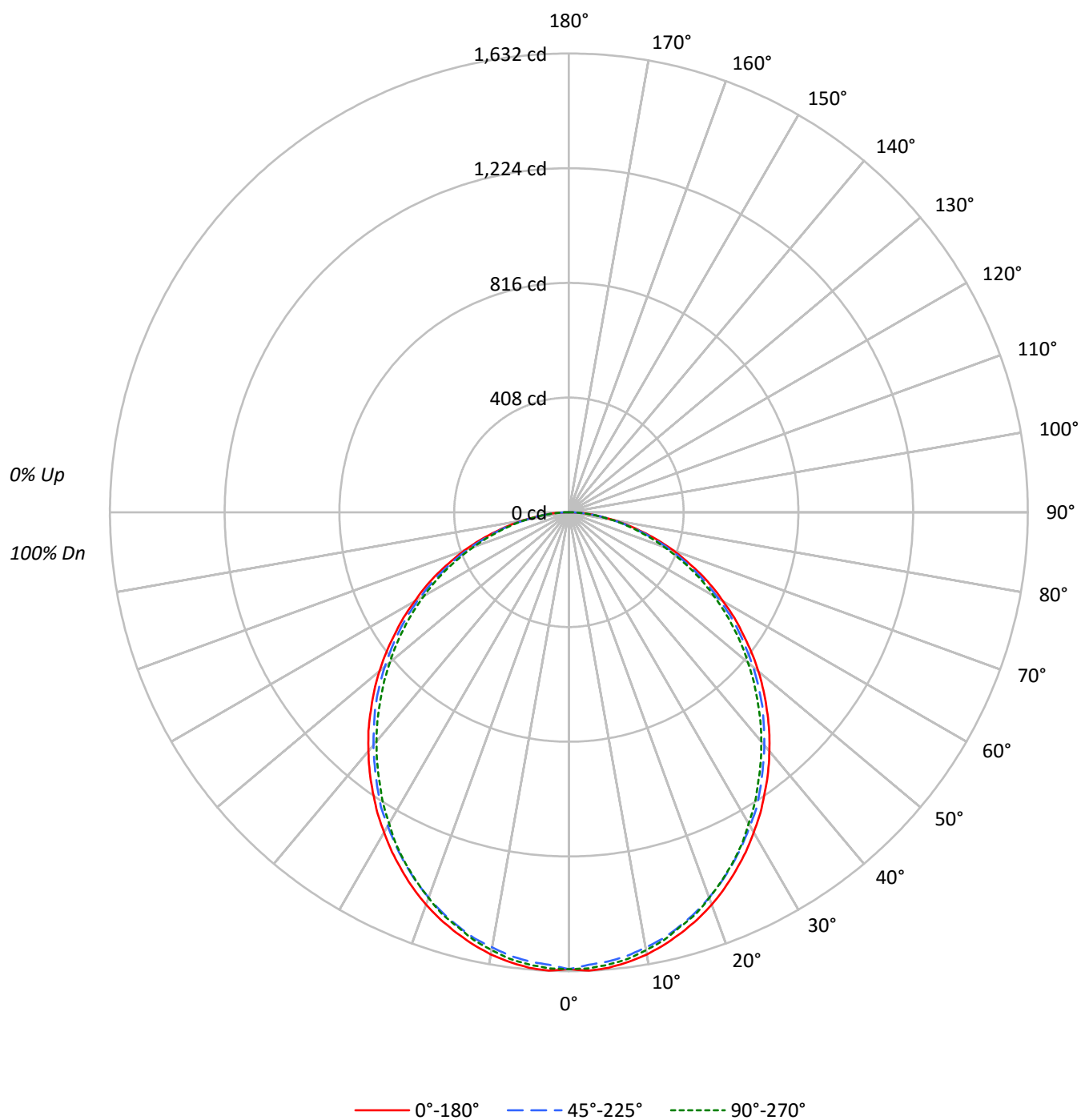
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
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	95	98	94	92	94	91	89	90	88	86	84		
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	70		
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59		
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51		
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44		
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39		
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34		
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31		
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28		
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19692	19692	19692
5°	19784	19513	19648
10°	19653	19342	19463
15°	19423	19124	19160
20°	19154	18812	18830
25°	18795	18440	18403
30°	18398	18027	17890
35°	17983	17591	17363
40°	17551	17108	16844
45°	17073	16667	16259
50°	16596	16121	15674
55°	15970	15558	15085
60°	15341	14899	14427
65°	14785	14183	13741
70°	13960	13368	12773
75°	12757	12298	11774
80°	11504	11022	10924
85°	10097	9707	9332

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.2	3.6
10°-20°	432.5	10.2
20°-30°	638.7	15.1
30°-40°	746.0	17.6
40°-50°	749.9	17.7
50°-60°	658.8	15.6
60°-70°	490.6	11.6
70°-80°	279.2	6.6
80°-90°	79.4	1.9
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°	1224.3	29.0
0°-40°	1970.3	46.6
0°-60°	3379.0	79.9
0°-90°	4228.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4228.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1625	1625	1625	1625	1625	
5°	1626	1619	1604	1618	1615	154
15°	1548	1542	1524	1535	1527	436
25°	1405	1397	1379	1380	1376	647
35°	1215	1207	1189	1180	1173	760
45°	996	990	972	956	948	769
55°	756	754	736	721	714	677
65°	516	508	494	483	479	509
75°	272	267	263	256	251	291
85°	73	70	70	67	67	83
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1624.6	1624.6	1624.6	1624.6	1624.6
2.5°	1631.6	1626.0	1610.6	1624.6	1623.2
5°	1626.0	1619.0	1603.7	1617.6	1614.8
7.5°	1613.4	1606.5	1591.1	1603.7	1602.3
10°	1596.7	1589.7	1571.5	1584.1	1581.3
12.5°	1574.3	1568.7	1552.0	1560.4	1559.0
15°	1547.8	1542.2	1524.0	1535.2	1526.8
17.5°	1518.5	1511.5	1493.3	1501.7	1498.9
20°	1484.9	1476.5	1458.4	1464.0	1459.8
22.5°	1447.2	1438.8	1420.7	1424.9	1419.3
25°	1405.3	1396.9	1378.8	1380.2	1376.0
27.5°	1362.0	1353.6	1334.1	1335.5	1331.3
30°	1314.5	1307.5	1288.0	1288.0	1278.2
32.5°	1267.0	1257.2	1243.3	1233.5	1229.3
35°	1215.3	1206.9	1188.8	1180.4	1173.4
37.5°	1163.6	1152.5	1134.3	1124.5	1120.3
40°	1109.2	1100.8	1081.2	1070.0	1064.5
42.5°	1054.7	1044.9	1025.3	1014.2	1008.6
45°	996.0	990.4	972.3	955.5	948.5
47.5°	938.7	930.3	913.6	896.8	891.2
50°	880.1	873.1	854.9	839.5	831.2
52.5°	818.6	814.4	794.8	782.3	773.9
55°	755.7	754.3	736.2	720.8	713.8
57.5°	697.1	691.5	677.5	663.5	655.2
60°	632.8	631.4	614.6	602.1	595.1
62.5°	575.5	571.3	554.6	542.0	537.8
65°	515.5	508.5	494.5	483.3	479.1
67.5°	451.2	445.6	434.4	424.7	419.1
70°	393.9	385.5	377.2	367.4	360.4
72.5°	333.9	328.3	318.5	310.1	307.3
75°	272.4	266.8	262.6	255.6	251.4
77.5°	217.9	215.1	209.5	204.0	204.0
80°	164.8	160.6	157.9	156.5	156.5
82.5°	113.2	113.2	113.2	110.4	109.0
85°	72.6	69.8	69.8	67.1	67.1
87.5°	36.3	32.1	30.7	29.3	29.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)