

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: P243471

Luminaire Tested: **S124DR-H1020D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243471
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-84)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DR-H1020D840-X4F0-XX-UDD-F-W
Description: DEFINE 4 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: 4120.5 lumens
Efficiency: N/A
Efficacy: 130.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

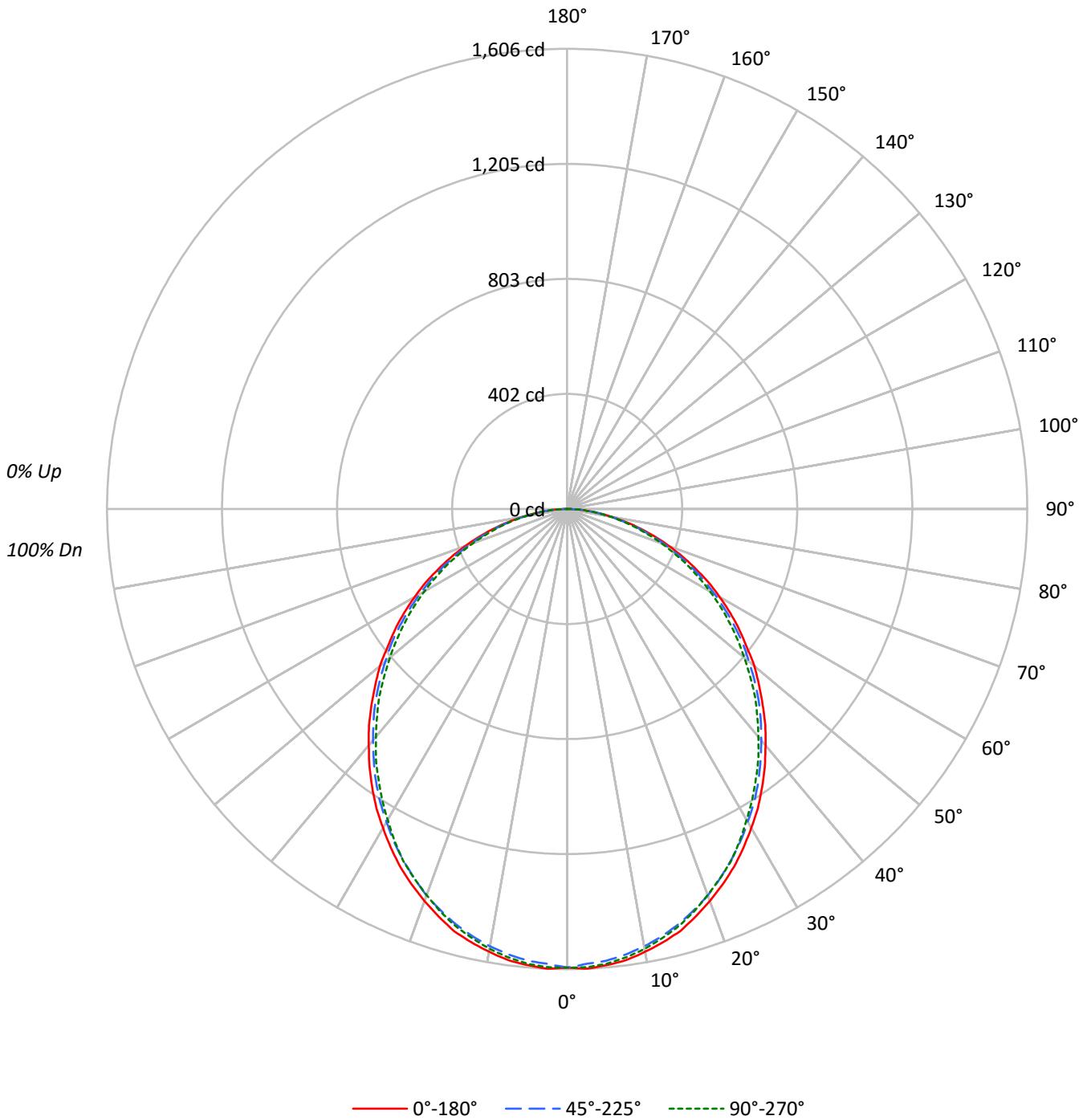
Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
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	95	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	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	48	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14228	14228	14228
5°	14259	14120	14212
10°	14165	13989	14071
15°	14035	13806	13866
20°	13773	13576	13564
25°	13514	13271	13284
30°	13193	12940	12860
35°	12874	12620	12465
40°	12497	12226	12045
45°	12131	11886	11657
50°	11796	11454	11167
55°	11363	11060	10716
60°	10928	10558	10233
65°	10409	10054	9724
70°	9850	9411	9104
75°	9081	8723	8452
80°	8001	7868	7668
85°	7037	7037	6905



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.9	3.7
10°-20°	425.5	10.3
20°-30°	626.6	15.2
30°-40°	729.0	17.7
40°-50°	729.3	17.7
50°-60°	637.8	15.5
60°-70°	473.7	11.5
70°-80°	269.9	6.6
80°-90°	77.8	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°	1202.9	29.2
0°-40°	1931.9	46.9
0°-60°	3299.1	80.1
0°-90°	4120.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4120.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1601	1601	1601	1601	1601	
5°	1598	1595	1582	1594	1593	152
15°	1525	1517	1500	1509	1507	429
25°	1378	1371	1353	1357	1354	634
35°	1186	1176	1163	1153	1149	742
45°	965	961	946	931	927	745
55°	733	728	714	698	692	655
65°	495	491	478	468	462	491
75°	264	259	254	249	246	280
85°	69	68	69	66	68	79
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1600.6	1600.6	1600.6	1600.6	1600.6
2.5°	1605.8	1601.9	1588.9	1601.9	1600.6
5°	1598.0	1595.4	1582.4	1594.1	1592.8
7.5°	1587.6	1582.4	1568.0	1579.8	1578.4
10°	1569.3	1565.4	1549.8	1561.5	1558.9
12.5°	1548.5	1544.6	1527.7	1536.8	1534.2
15°	1525.1	1517.2	1500.3	1509.4	1506.8
17.5°	1491.2	1486.0	1469.1	1476.9	1473.0
20°	1456.0	1449.5	1435.2	1436.5	1433.9
22.5°	1418.3	1411.7	1394.8	1400.0	1394.8
25°	1377.9	1371.4	1353.1	1357.0	1354.4
27.5°	1332.3	1325.8	1308.9	1310.2	1305.0
30°	1285.4	1277.6	1260.7	1259.4	1252.9
32.5°	1238.5	1230.7	1213.8	1208.6	1202.1
35°	1186.4	1176.0	1163.0	1152.6	1148.7
37.5°	1133.0	1127.8	1108.3	1101.8	1096.6
40°	1077.0	1071.8	1053.6	1044.5	1038.0
42.5°	1023.6	1017.1	1000.2	987.2	982.0
45°	965.0	961.1	945.5	931.2	927.3
47.5°	907.7	906.4	886.9	872.6	866.1
50°	853.0	845.2	828.3	815.3	807.5
52.5°	789.2	787.9	773.6	756.7	750.2
55°	733.2	728.0	713.7	698.1	691.5
57.5°	674.6	672.0	653.8	640.8	634.2
60°	614.7	609.5	593.9	582.2	575.6
62.5°	557.4	550.9	536.6	524.8	518.3
65°	494.9	491.0	478.0	467.5	462.3
67.5°	436.3	431.1	418.1	408.9	403.7
70°	379.0	371.2	362.1	354.2	350.3
72.5°	321.7	315.2	307.4	302.1	296.9
75°	264.4	259.2	254.0	248.7	246.1
77.5°	209.7	204.5	201.9	200.6	198.0
80°	156.3	153.7	153.7	152.4	149.8
82.5°	110.7	108.1	108.1	108.1	106.8
85°	69.0	67.7	69.0	66.4	67.7
87.5°	32.6	32.6	33.9	32.6	33.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)