

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: P242611

Luminaire Tested: **S124DR-S1020D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242611
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-5)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DR-S1020D840-X4F0-XX-UDD-F-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4125.2 lumens
Efficiency: N/A
Efficacy: 118.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

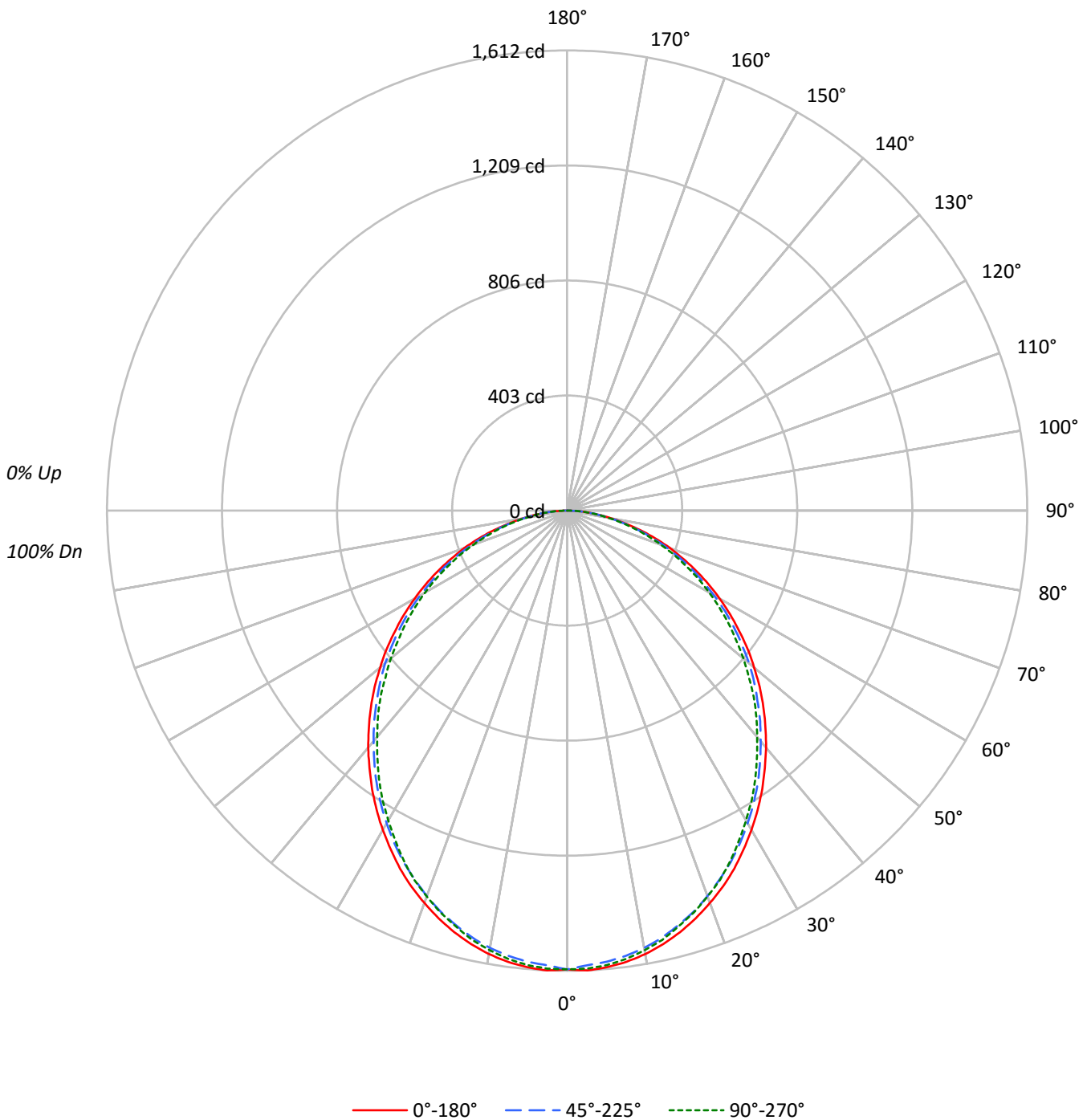
Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	47	41	52	46	41	39
7	66	52	44	38	64	52	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	34	46	39	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	28	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14286	14286	14286
5°	14329	14157	14261
10°	14239	14042	14111
15°	14068	13842	13877
20°	13839	13595	13607
25°	13578	13313	13275
30°	13258	12980	12862
35°	12926	12633	12465
40°	12583	12238	12014
45°	12223	11851	11624
50°	11825	11504	11149
55°	11397	11057	10698
60°	10967	10555	10235
65°	10483	10077	9671
70°	9941	9439	9070
75°	9111	8668	8449
80°	8108	7781	7581
85°	7088	6833	6701



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.5	3.7
10°-20°	426.8	10.3
20°-30°	628.1	15.2
30°-40°	730.1	17.7
40°-50°	730.1	17.7
50°-60°	638.6	15.5
60°-70°	474.1	11.5
70°-80°	269.0	6.5
80°-90°	77.0	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°	1206.4	29.2
0°-40°	1936.5	46.9
0°-60°	3305.1	80.1
0°-90°	4125.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4125.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1607	1607	1607	1607	1607	
5°	1606	1601	1587	1601	1598	152
15°	1529	1524	1504	1512	1508	431
25°	1384	1375	1357	1359	1354	637
35°	1191	1182	1164	1155	1149	745
45°	972	963	943	928	925	750
55°	735	732	714	698	690	659
65°	498	492	479	466	460	493
75°	265	259	252	247	246	281
85°	70	70	67	67	66	79
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1607.2	1607.2	1607.2	1607.2	1607.2
2.5°	1612.4	1608.5	1594.3	1607.2	1605.9
5°	1605.9	1600.8	1586.6	1600.8	1598.2
7.5°	1594.3	1589.2	1573.7	1585.3	1584.0
10°	1577.6	1572.4	1555.7	1566.0	1563.4
12.5°	1555.7	1550.5	1532.5	1544.1	1540.2
15°	1528.7	1523.5	1504.2	1511.9	1508.0
17.5°	1497.7	1491.3	1473.3	1478.4	1475.9
20°	1463.0	1456.5	1437.2	1441.1	1438.5
22.5°	1425.6	1416.6	1397.3	1405.0	1399.9
25°	1384.4	1375.4	1357.4	1358.7	1353.5
27.5°	1338.1	1329.0	1312.3	1309.7	1303.3
30°	1291.7	1281.4	1264.6	1259.5	1253.1
32.5°	1242.8	1233.7	1215.7	1209.3	1202.8
35°	1191.2	1182.2	1164.2	1155.2	1148.7
37.5°	1137.2	1129.4	1110.1	1101.1	1092.1
40°	1084.4	1074.0	1054.7	1041.9	1035.4
42.5°	1027.7	1022.5	1000.6	985.2	981.3
45°	972.3	963.3	942.7	928.5	924.7
47.5°	914.4	907.9	888.6	873.1	862.8
50°	855.1	850.0	831.9	813.9	806.2
52.5°	797.2	790.7	771.4	756.0	745.7
55°	735.4	731.5	713.5	698.0	690.3
57.5°	677.4	673.5	655.5	640.1	632.3
60°	616.9	610.4	593.7	582.1	575.7
62.5°	557.6	552.5	534.4	524.1	517.7
65°	498.4	492.0	479.1	466.2	459.8
67.5°	437.9	432.7	419.8	407.0	405.7
70°	382.5	373.5	363.2	352.9	349.0
72.5°	323.2	314.2	306.5	298.8	294.9
75°	265.3	258.9	252.4	247.3	246.0
77.5°	208.6	206.1	199.6	198.3	194.5
80°	158.4	154.5	152.0	149.4	148.1
82.5°	109.5	108.2	108.2	106.9	105.6
85°	69.5	69.5	67.0	67.0	65.7
87.5°	33.5	32.2	30.9	30.9	30.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)