

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: P243574

Luminaire Tested: **S124RDR-H1020D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243574
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-65)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124RDR-H1020D840-X4F0-XX-UDD-F-W
Description: DEFINE 4 REGRESSED 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: 3885.3 lumens
Efficiency: N/A
Efficacy: 123.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.1 / 1.25
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

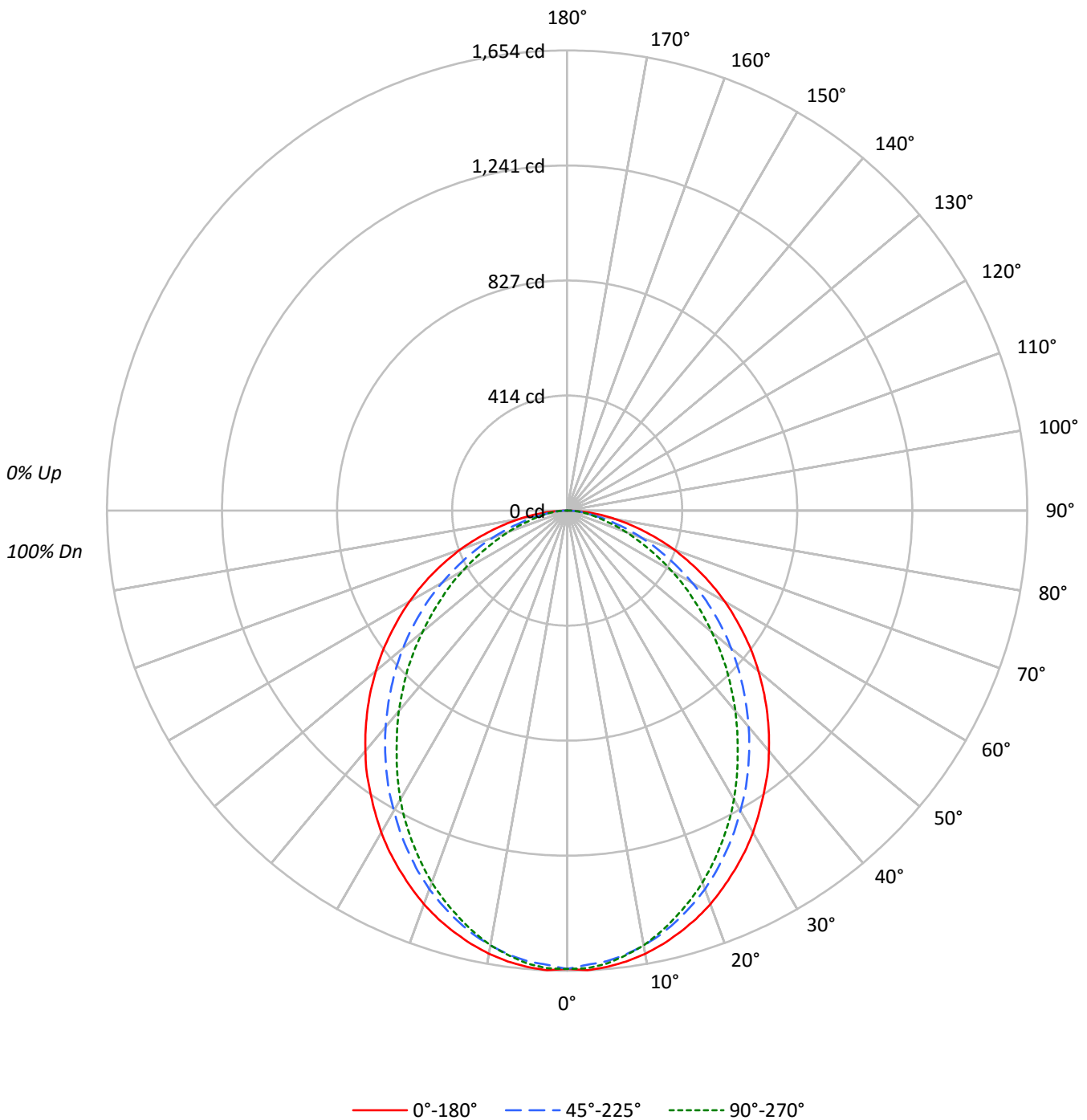
Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61
4	84	73	64	58	82	71	64	57	69	62	57	67	61	56	64	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36
8	62	49	41	35	61	49	41	35	47	40	35	46	39	35	45	39	34	33
9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14645	14645	14645
5°	14691	14507	14583
10°	14597	14323	14323
15°	14435	14044	13910
20°	14240	13699	13458
25°	13977	13262	12904
30°	13717	12781	12307
35°	13393	12311	11598
40°	13094	11781	10921
45°	12763	11219	10211
50°	12410	10644	9383
55°	12023	9988	8556
60°	11652	9230	7696
65°	11152	8337	6726
70°	10619	7363	5848
75°	9816	6137	4760
80°	8963	4791	4356
85°	7935	4589	4345



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.0	4.0
10°-20°	432.7	11.1
20°-30°	627.5	16.2
30°-40°	715.2	18.4
40°-50°	695.9	17.9
50°-60°	584.6	15.0
60°-70°	407.3	10.5
70°-80°	210.3	5.4
80°-90°	56.9	1.5
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°	1215.2	31.3
0°-40°	1930.4	49.7
0°-60°	3210.9	82.6
0°-90°	3885.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3885.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1648	1648	1648	1648	1648	
5°	1646	1642	1626	1638	1634	156
15°	1569	1556	1526	1524	1512	442
25°	1425	1398	1352	1333	1316	657
35°	1234	1196	1134	1092	1069	773
45°	1015	967	892	835	812	783
55°	776	726	644	579	552	695
65°	530	479	396	339	320	525
75°	286	242	179	150	139	304
85°	78	50	45	43	43	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1647.6	1647.6	1647.6	1647.6	1647.6
2.5°	1653.7	1648.9	1634.3	1647.6	1646.4
5°	1646.4	1641.6	1625.8	1637.9	1634.3
7.5°	1634.3	1628.2	1610.0	1618.5	1612.4
10°	1617.2	1611.2	1586.8	1592.9	1586.8
12.5°	1595.4	1586.8	1560.1	1561.3	1551.6
15°	1568.6	1556.5	1526.1	1523.6	1511.5
17.5°	1539.4	1523.6	1488.4	1482.3	1468.9
20°	1505.4	1485.9	1448.2	1434.9	1422.7
22.5°	1466.5	1443.4	1402.0	1386.2	1370.4
25°	1425.1	1398.4	1352.2	1332.7	1315.7
27.5°	1382.6	1351.0	1301.1	1276.8	1259.8
30°	1336.4	1299.9	1245.2	1217.2	1199.0
32.5°	1285.3	1248.8	1191.7	1157.6	1134.5
35°	1234.2	1196.5	1134.5	1091.9	1068.8
37.5°	1184.4	1141.8	1074.9	1031.1	1004.4
40°	1128.4	1083.4	1015.3	965.5	941.2
42.5°	1072.5	1026.3	953.3	901.0	874.3
45°	1015.3	966.7	892.5	835.4	812.3
47.5°	957.0	908.3	831.7	772.1	745.4
50°	897.4	848.8	769.7	704.1	678.5
52.5°	839.0	788.0	708.9	642.0	615.3
55°	775.8	725.9	644.5	578.8	552.1
57.5°	715.0	662.7	583.7	516.8	494.9
60°	655.4	603.1	519.2	454.8	432.9
62.5°	592.2	539.9	457.2	395.2	375.7
65°	530.2	479.1	396.4	339.3	319.8
67.5°	466.9	420.7	340.5	285.8	269.9
70°	408.6	356.3	283.3	235.9	225.0
72.5°	346.6	300.3	229.8	190.9	182.4
75°	285.8	242.0	178.7	149.6	138.6
77.5°	229.8	187.3	135.0	110.7	110.7
80°	175.1	137.4	93.6	87.6	85.1
82.5°	124.0	88.8	69.3	64.4	63.2
85°	77.8	49.9	45.0	42.6	42.6
87.5°	37.7	23.1	23.1	21.9	21.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)