

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: P242709

Luminaire Tested: **S124RDR-S1020D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242709
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-26)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124RDR-S1020D835-X4F0-XX-UDD-F-W
Description: DEFINE 4 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3848.2 lumens
Efficiency: N/A
Efficacy: 110.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

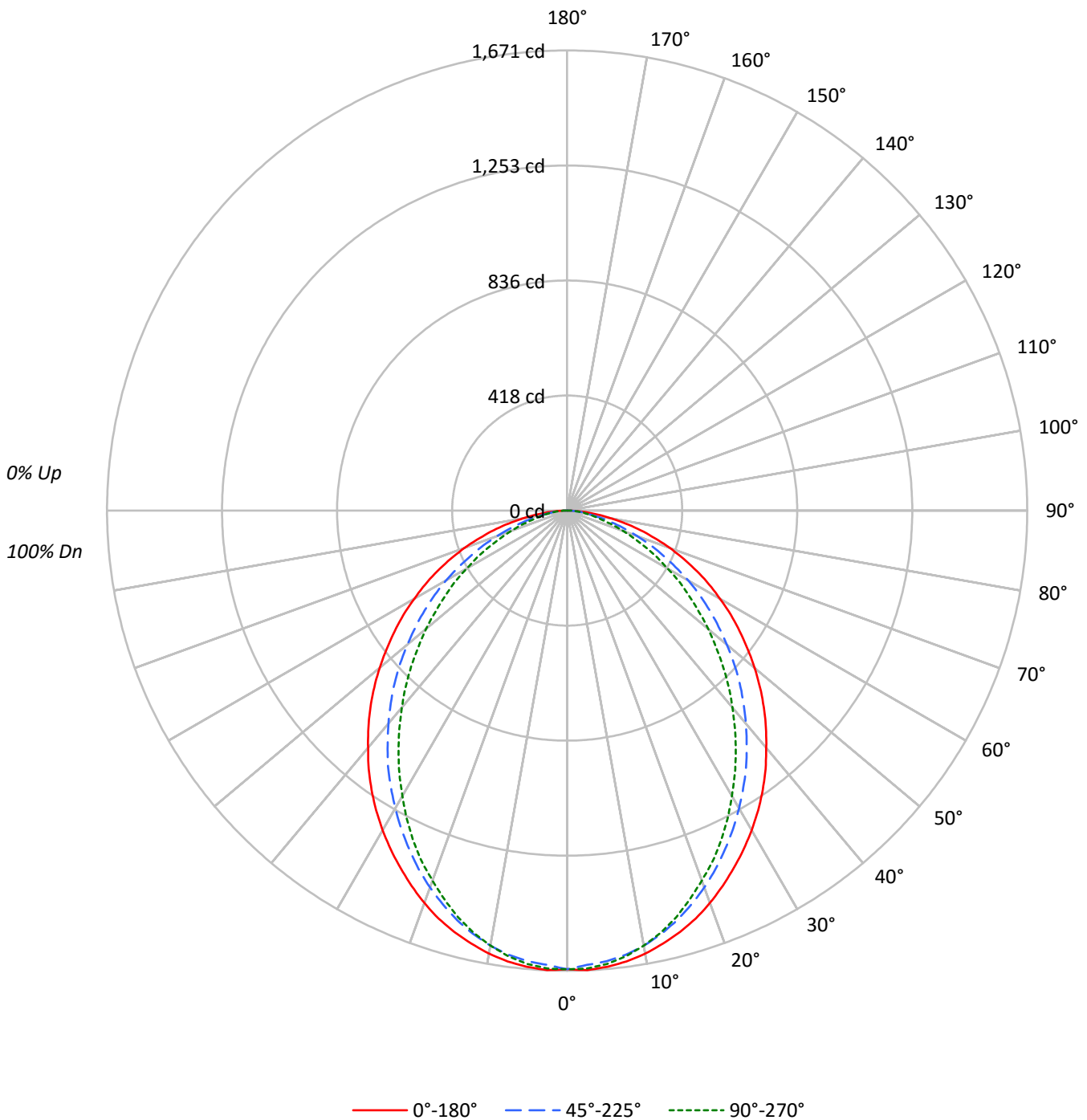
Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85					85			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	74	72					72			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	65	60	56	54					54			
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	47					47			
6	72	59	51	45	70	58	50	44	57	49	44	55	49	44	53	48	43	41					41			
7	67	54	46	40	65	53	45	40	52	45	39	50	44	39	49	43	39	37					37			
8	63	50	41	36	61	49	41	36	48	40	35	46	40	35	45	39	35	33					33			
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32	30					30			
10	55	42	35	29	54	42	34	29	41	34	29	40	33	29	39	33	29	27					27			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14804	14804	14804
5°	14838	14656	14747
10°	14745	14480	14480
15°	14576	14176	14071
20°	14343	13776	13523
25°	14046	13308	12970
30°	13757	12815	12278
35°	13437	12302	11583
40°	13052	11720	10832
45°	12697	11142	10068
50°	12291	10475	9258
55°	11857	9782	8379
60°	11381	9022	7481
65°	10943	8072	6598
70°	10307	7028	5601
75°	9503	5825	4554
80°	8293	4438	4177
85°	7027	4029	3774



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.6	4.1
10°-20°	436.7	11.3
20°-30°	630.4	16.4
30°-40°	714.5	18.6
40°-50°	689.9	17.9
50°-60°	573.5	14.9
60°-70°	395.9	10.3
70°-80°	200.0	5.2
80°-90°	50.8	1.3
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°	1223.7	31.8
0°-40°	1938.2	50.4
0°-60°	3201.5	83.2
0°-90°	3848.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3848.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1666	1666	1666	1666	1666	
5°	1663	1658	1642	1655	1653	158
15°	1584	1572	1540	1538	1529	446
25°	1432	1409	1357	1335	1322	660
35°	1238	1198	1134	1090	1067	774
45°	1010	963	886	824	801	779
55°	765	714	631	565	541	684
65°	520	466	384	329	314	514
75°	277	230	170	140	133	292
85°	69	43	40	37	37	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1665.5	1665.5	1665.5	1665.5	1665.5
2.5°	1670.6	1665.5	1651.4	1665.5	1664.2
5°	1662.9	1657.8	1642.5	1655.3	1652.7
7.5°	1651.4	1646.3	1627.2	1636.1	1632.3
10°	1633.6	1627.2	1604.3	1609.4	1604.3
12.5°	1610.6	1603.0	1574.9	1577.5	1569.8
15°	1583.9	1572.4	1540.5	1537.9	1529.0
17.5°	1553.2	1536.7	1499.7	1493.3	1480.6
20°	1516.3	1499.7	1456.3	1446.1	1429.6
22.5°	1475.5	1456.3	1409.1	1392.6	1379.8
25°	1432.1	1409.1	1356.9	1335.2	1322.4
27.5°	1387.5	1359.4	1304.6	1279.1	1261.2
30°	1340.3	1308.4	1248.5	1216.6	1196.2
32.5°	1290.5	1253.6	1191.1	1152.8	1133.7
35°	1238.3	1197.5	1133.7	1090.3	1067.4
37.5°	1183.4	1141.3	1071.2	1024.0	1001.1
40°	1124.8	1082.7	1010.0	956.4	933.5
42.5°	1068.7	1024.0	947.5	892.7	868.4
45°	1010.0	962.8	886.3	823.8	800.9
47.5°	950.1	901.6	822.5	757.5	732.0
50°	888.8	839.1	757.5	693.7	669.5
52.5°	826.4	777.9	693.7	628.7	603.2
55°	765.1	714.1	631.2	564.9	540.7
57.5°	705.2	651.7	570.0	502.4	484.6
60°	640.2	589.2	507.5	441.2	420.8
62.5°	581.5	528.0	443.8	383.8	368.5
65°	520.3	465.5	383.8	329.0	313.7
67.5°	456.5	404.3	327.7	279.3	261.4
70°	396.6	343.0	270.4	228.3	215.5
72.5°	332.8	285.7	218.1	183.6	172.2
75°	276.7	229.5	169.6	140.3	132.6
77.5°	218.1	177.3	126.2	105.8	103.3
80°	162.0	125.0	86.7	82.9	81.6
82.5°	113.5	80.3	62.5	59.9	58.7
85°	68.9	43.4	39.5	37.0	37.0
87.5°	29.3	19.1	17.9	16.6	17.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)