

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: P242729

Luminaire Tested: **S124RDR-S1020D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242729
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-S1020D940-X4F0-XX-UDD-F-W
Description: DEFINE 4 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3431.5 lumens
Efficiency: N/A
Efficacy: 98.6 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

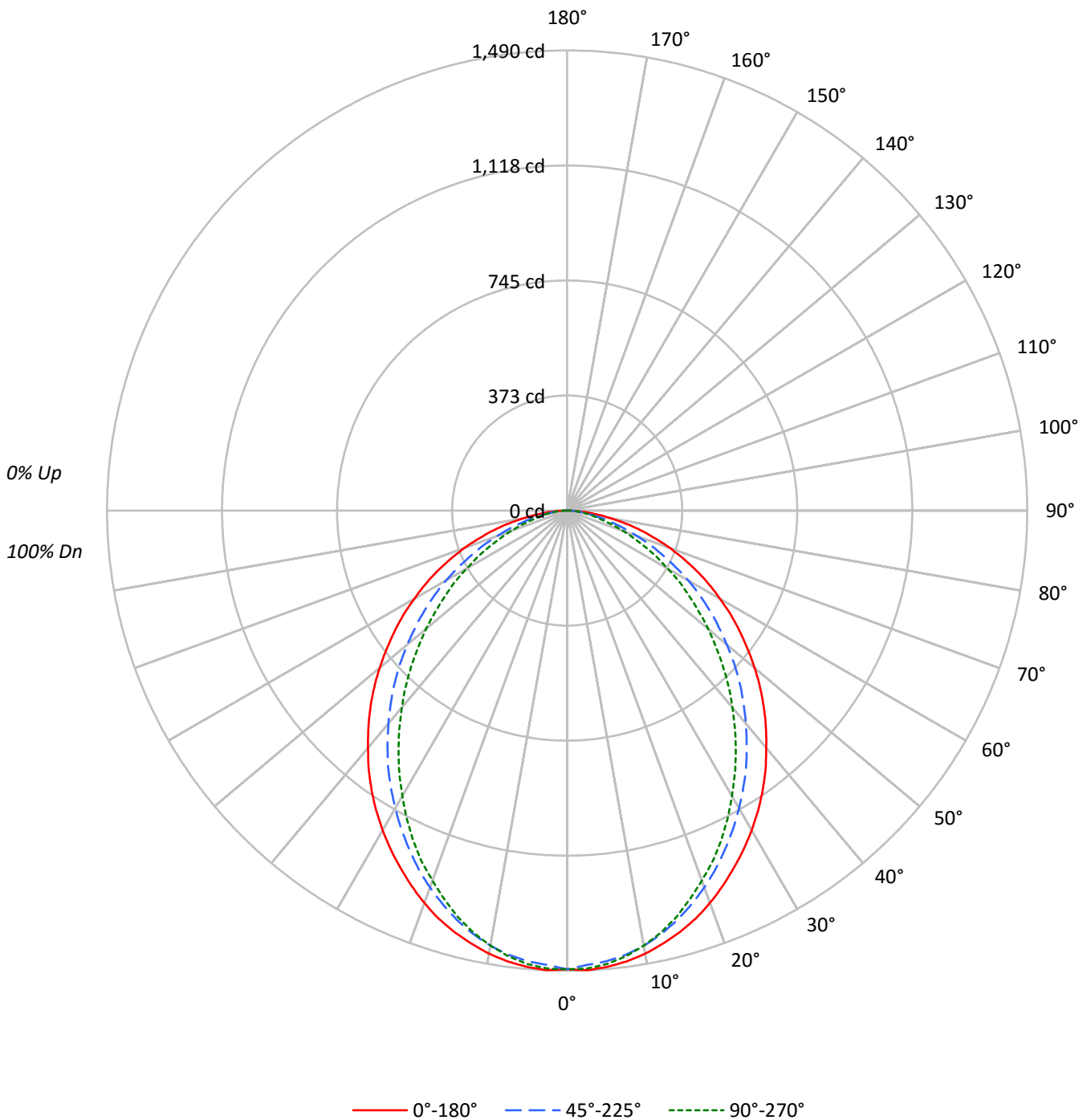
Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	13201	13201	13201
5°	13231	13068	13150
10°	13148	12912	12912
15°	12997	12641	12547
20°	12790	12284	12058
25°	12525	11866	11565
30°	12267	11427	10948
35°	11982	10970	10328
40°	11638	10450	9659
45°	11321	9935	8977
50°	10961	9341	8256
55°	10574	8723	7473
60°	10148	8046	6672
65°	9759	7200	5883
70°	9192	6266	4995
75°	8476	5193	4063
80°	7392	3957	3727
85°	6262	3600	3366



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.7	4.1
10°-20°	389.4	11.3
20°-30°	562.2	16.4
30°-40°	637.1	18.6
40°-50°	615.1	17.9
50°-60°	511.4	14.9
60°-70°	353.0	10.3
70°-80°	178.4	5.2
80°-90°	45.3	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°	1091.2	31.8
0°-40°	1728.3	50.4
0°-60°	2854.9	83.2
0°-90°	3431.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3431.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1485	1485	1485	1485	1485	
5°	1483	1478	1465	1476	1474	141
15°	1412	1402	1374	1371	1363	398
25°	1277	1257	1210	1191	1179	588
35°	1104	1068	1011	972	952	690
45°	901	858	790	735	714	694
55°	682	637	563	504	482	610
65°	464	415	342	293	280	458
75°	247	205	151	125	118	260
85°	61	39	35	33	33	71
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1485.1	1485.1	1485.1	1485.1	1485.1
2.5°	1489.7	1485.1	1472.6	1485.1	1484.0
5°	1482.8	1478.3	1464.6	1476.0	1473.7
7.5°	1472.6	1468.1	1451.0	1459.0	1455.6
10°	1456.7	1451.0	1430.5	1435.1	1430.5
12.5°	1436.2	1429.4	1404.4	1406.7	1399.8
15°	1412.3	1402.1	1373.7	1371.4	1363.4
17.5°	1385.0	1370.3	1337.3	1331.6	1320.2
20°	1352.1	1337.3	1298.6	1289.5	1274.7
22.5°	1315.7	1298.6	1256.6	1241.8	1230.4
25°	1277.0	1256.6	1209.9	1190.6	1179.2
27.5°	1237.2	1212.2	1163.3	1140.6	1124.6
30°	1195.1	1166.7	1113.3	1084.8	1066.6
32.5°	1150.8	1117.8	1062.1	1028.0	1010.9
35°	1104.2	1067.8	1010.9	972.3	951.8
37.5°	1055.3	1017.7	955.2	913.1	892.7
40°	1003.0	965.4	900.6	852.9	832.4
42.5°	952.9	913.1	844.9	796.0	774.4
45°	900.6	858.5	790.3	734.6	714.1
47.5°	847.2	804.0	733.5	675.5	652.7
50°	792.6	748.2	675.5	618.6	597.0
52.5°	736.9	693.7	618.6	560.6	537.9
55°	682.3	636.8	562.9	503.8	482.2
57.5°	628.8	581.1	508.3	448.0	432.1
60°	570.8	525.4	452.6	393.5	375.3
62.5°	518.5	470.8	395.7	342.3	328.6
65°	464.0	415.1	342.3	293.4	279.7
67.5°	407.1	360.5	292.2	249.0	233.1
70°	353.7	305.9	241.1	203.5	192.2
72.5°	296.8	254.7	194.5	163.7	153.5
75°	246.8	204.7	151.2	125.1	118.3
77.5°	194.5	158.1	112.6	94.4	92.1
80°	144.4	111.4	77.3	73.9	72.8
82.5°	101.2	71.6	55.7	53.4	52.3
85°	61.4	38.7	35.3	33.0	33.0
87.5°	26.2	17.1	15.9	14.8	15.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)