

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: P242096

Luminaire Tested: **S121DR-S1025D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242096
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-9)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121DR-S1025D840-X4F0-XX-UDD-F-W
Description: DEFINE 1 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: 4116.4 lumens
Efficiency: N/A
Efficacy: 100.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')
CIE Type: Direct

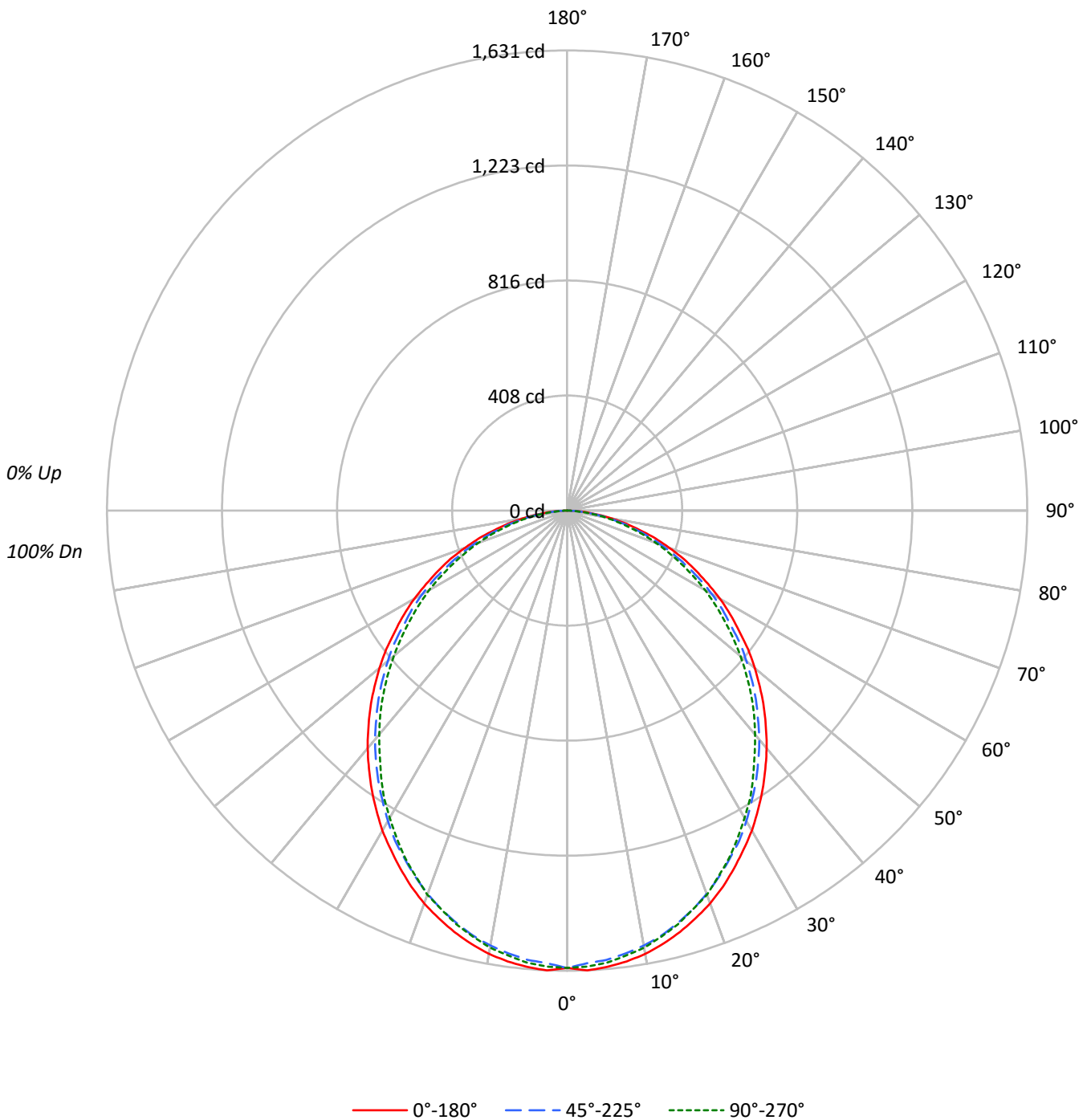
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84					84			
2	99	91	85	79	97	89	83	78	86	81	76	83	78	75	80	76	73	71					71			
3	91	80	72	66	88	79	71	66	76	70	64	73	68	63	71	66	62	60					60			
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52					52			
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45					45			
6	71	58	49	43	69	57	49	42	55	48	42	53	47	42	52	46	41	39					39			
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35					35			
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31					31			
9	57	44	36	31	56	44	36	30	42	35	30	41	35	30	40	34	30	28					28			
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	48027	48027	48027
5°	48299	47544	47856
10°	48003	47101	47327
15°	47427	46417	46555
20°	46720	45588	45683
25°	45750	44528	44429
30°	44806	43475	43013
35°	43688	42226	41579
40°	42551	40988	40060
45°	41329	39636	38634
50°	40016	38222	36978
55°	38428	36491	35179
60°	37073	35123	33529
65°	35258	32952	31269
70°	33197	30728	29048
75°	30498	27933	26044
80°	27062	24520	22728
85°	22404	18324	16284



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.7	3.7
10°-20°	429.8	10.4
20°-30°	632.1	15.4
30°-40°	734.0	17.8
40°-50°	732.3	17.8
50°-60°	637.3	15.5
60°-70°	469.4	11.4
70°-80°	261.4	6.4
80°-90°	67.5	1.6
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°	1214.6	29.5
0°-40°	1948.6	47.3
0°-60°	3318.1	80.6
0°-90°	4116.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4116.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1621	1621	1621	1621	1621	
5°	1624	1616	1598	1612	1609	154
15°	1546	1534	1513	1524	1518	436
25°	1399	1384	1362	1365	1359	645
35°	1208	1193	1167	1156	1150	755
45°	986	970	946	928	922	760
55°	744	735	706	693	681	667
65°	503	492	470	455	446	499
75°	266	259	244	234	228	284
85°	66	63	54	51	48	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1620.9	1620.9	1620.9	1620.9	1620.9
2.5°	1631.4	1622.4	1606.0	1619.4	1617.9
5°	1623.9	1616.4	1598.5	1611.9	1609.0
7.5°	1611.9	1603.0	1583.5	1595.5	1591.0
10°	1595.5	1586.5	1565.5	1574.5	1573.0
12.5°	1573.0	1562.6	1543.1	1550.6	1546.1
15°	1546.1	1534.1	1513.2	1523.6	1517.7
17.5°	1514.7	1501.2	1481.7	1487.7	1481.7
20°	1481.7	1466.8	1445.8	1451.8	1448.8
22.5°	1442.8	1429.3	1405.4	1408.4	1402.4
25°	1399.4	1384.4	1362.0	1365.0	1359.0
27.5°	1354.5	1341.0	1320.1	1315.6	1308.1
30°	1309.6	1293.1	1270.7	1264.7	1257.2
32.5°	1258.7	1243.8	1218.3	1212.3	1207.8
35°	1207.8	1192.9	1167.4	1155.5	1149.5
37.5°	1154.0	1139.0	1113.5	1100.1	1091.1
40°	1100.1	1083.6	1059.7	1046.2	1035.7
42.5°	1043.2	1028.2	1001.3	987.8	980.3
45°	986.3	969.9	945.9	928.0	922.0
47.5°	926.5	911.5	887.5	868.1	862.1
50°	868.1	851.6	829.2	809.7	802.2
52.5°	808.2	793.2	772.3	752.8	740.9
55°	743.9	734.9	706.4	693.0	681.0
57.5°	685.5	675.0	652.6	630.1	622.6
60°	625.6	613.6	592.7	573.2	565.8
62.5°	562.8	553.8	532.8	514.9	504.4
65°	502.9	492.4	470.0	455.0	446.0
67.5°	447.5	434.0	411.6	396.6	389.1
70°	383.2	372.7	354.7	342.7	335.3
72.5°	327.8	315.8	299.3	287.4	279.9
75°	266.4	258.9	244.0	233.5	227.5
77.5°	212.5	202.1	191.6	184.1	179.6
80°	158.6	151.2	143.7	136.2	133.2
82.5°	110.8	104.8	97.3	92.8	88.3
85°	65.9	62.9	53.9	50.9	47.9
87.5°	31.4	26.9	18.0	16.5	15.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)