

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: P242602

Luminaire Tested: **S124DR-S1020D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242602
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-S1020D830-X4F0-XX-UDD-F-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3850.2 lumens
Efficiency: N/A
Efficacy: 110.6 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

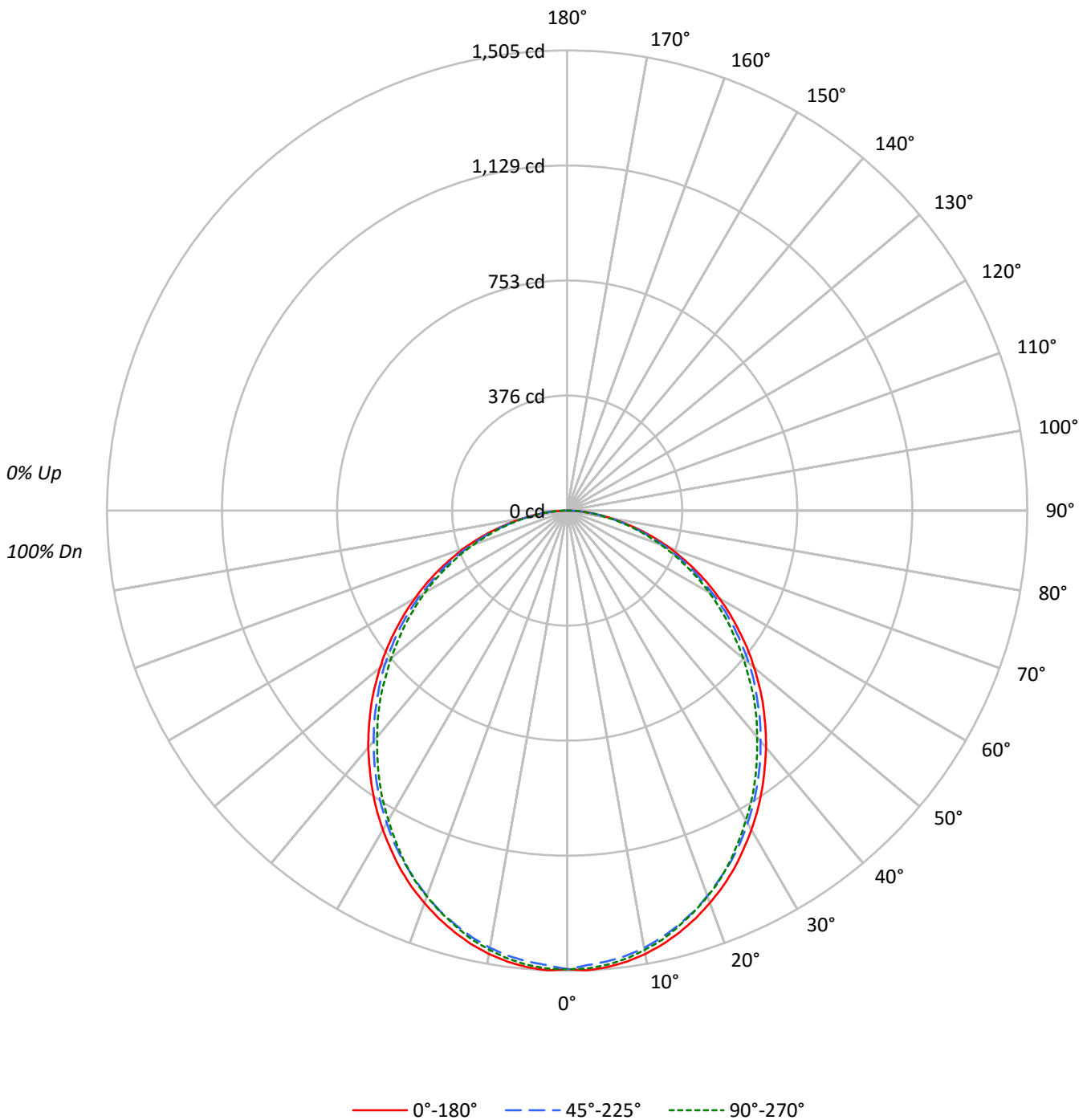
Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	13334	13334	13334
5°	13374	13213	13310
10°	13290	13106	13171
15°	13129	12919	12952
20°	12916	12689	12700
25°	12673	12426	12390
30°	12374	12115	12004
35°	12065	11791	11635
40°	11744	11423	11214
45°	11408	11060	10849
50°	11037	10738	10405
55°	10636	10320	9985
60°	10235	9851	9552
65°	9785	9404	9025
70°	9278	8810	8465
75°	8504	8091	7885
80°	7566	7259	7074
85°	6619	6374	6252



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.4	3.7
10°-20°	398.3	10.3
20°-30°	586.2	15.2
30°-40°	681.5	17.7
40°-50°	681.4	17.7
50°-60°	596.0	15.5
60°-70°	442.5	11.5
70°-80°	251.1	6.5
80°-90°	71.9	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°	1126.0	29.2
0°-40°	1807.4	46.9
0°-60°	3084.8	80.1
0°-90°	3850.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3850.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1500	1500	1500	1500	1500	
5°	1499	1494	1481	1494	1492	142
15°	1427	1422	1404	1411	1408	402
25°	1292	1284	1267	1268	1263	595
35°	1112	1103	1087	1078	1072	695
45°	908	899	880	867	863	700
55°	686	683	666	652	644	615
65°	465	459	447	435	429	460
75°	248	242	236	231	230	263
85°	65	65	62	62	61	74
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1500.1	1500.1	1500.1	1500.1	1500.1
2.5°	1504.9	1501.3	1488.0	1500.1	1498.9
5°	1498.9	1494.1	1480.8	1494.1	1491.7
7.5°	1488.0	1483.2	1468.8	1479.6	1478.4
10°	1472.4	1467.6	1452.0	1461.6	1459.2
12.5°	1452.0	1447.2	1430.4	1441.2	1437.6
15°	1426.7	1421.9	1403.9	1411.1	1407.5
17.5°	1397.9	1391.9	1375.1	1379.9	1377.5
20°	1365.4	1359.4	1341.4	1345.0	1342.6
22.5°	1330.6	1322.2	1304.1	1311.4	1306.5
25°	1292.1	1283.7	1266.9	1268.1	1263.3
27.5°	1248.9	1240.4	1224.8	1222.4	1216.4
30°	1205.6	1196.0	1180.3	1175.5	1169.5
32.5°	1159.9	1151.5	1134.7	1128.7	1122.6
35°	1111.8	1103.4	1086.6	1078.2	1072.2
37.5°	1061.3	1054.1	1036.1	1027.7	1019.3
40°	1012.1	1002.4	984.4	972.4	966.4
42.5°	959.2	954.4	933.9	919.5	915.9
45°	907.5	899.1	879.8	866.6	863.0
47.5°	853.4	847.4	829.4	814.9	805.3
50°	798.1	793.3	776.5	759.6	752.4
52.5°	744.0	738.0	720.0	705.6	695.9
55°	686.3	682.7	665.9	651.5	644.3
57.5°	632.2	628.6	611.8	597.4	590.2
60°	575.7	569.7	554.1	543.3	537.3
62.5°	520.5	515.6	498.8	489.2	483.2
65°	465.2	459.2	447.1	435.1	429.1
67.5°	408.7	403.9	391.8	379.8	378.6
70°	357.0	348.6	339.0	329.3	325.7
72.5°	301.7	293.3	286.1	278.9	275.3
75°	247.6	241.6	235.6	230.8	229.6
77.5°	194.7	192.3	186.3	185.1	181.5
80°	147.8	144.2	141.8	139.4	138.2
82.5°	102.2	101.0	101.0	99.8	98.6
85°	64.9	64.9	62.5	62.5	61.3
87.5°	31.3	30.0	28.8	28.8	28.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)