

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: P243569

Luminaire Tested: **S124RDR-H1020D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243569
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-H1020D835-X4F0-XX-UDD-F-W
Description: DEFINE 4 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3847.3 lumens
Efficiency: N/A
Efficacy: 122.1 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

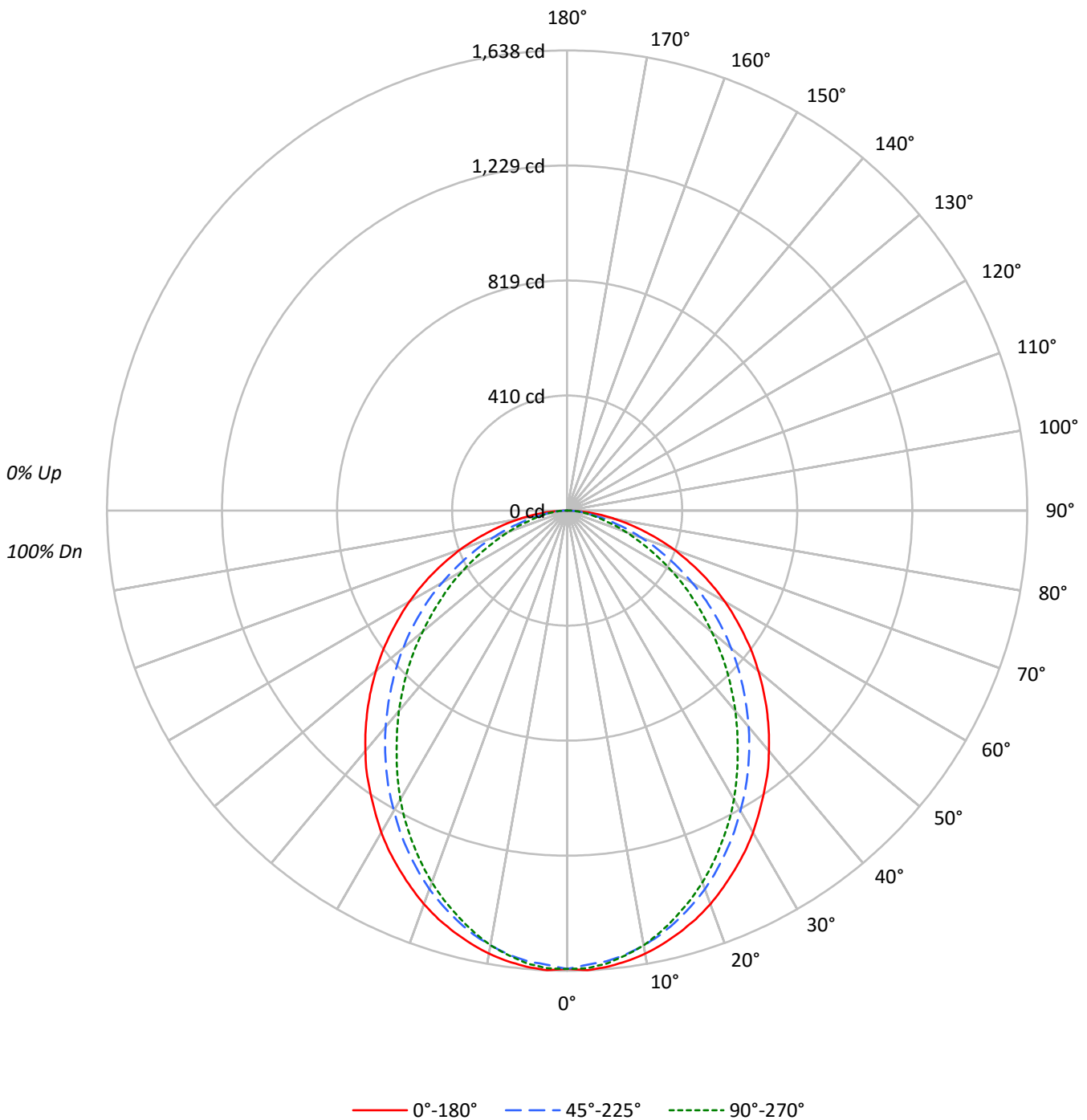
Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	14503	14503	14503
5°	14547	14365	14440
10°	14455	14183	14183
15°	14294	13906	13773
20°	14101	13566	13326
25°	13841	13133	12778
30°	13582	12656	12185
35°	13263	12190	11485
40°	12966	11666	10815
45°	12639	11110	10111
50°	12288	10540	9291
55°	11905	9890	8472
60°	11538	9141	7621
65°	11042	8255	6661
70°	10515	7293	5790
75°	9719	6079	4715
80°	8876	4745	4315
85°	7863	4549	4294



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.4	4.0
10°-20°	428.5	11.1
20°-30°	621.4	16.2
30°-40°	708.2	18.4
40°-50°	689.1	17.9
50°-60°	578.9	15.0
60°-70°	403.3	10.5
70°-80°	208.3	5.4
80°-90°	56.3	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°	1203.3	31.3
0°-40°	1911.6	49.7
0°-60°	3179.5	82.6
0°-90°	3847.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3847.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1632	1632	1632	1632	1632	
5°	1630	1626	1610	1622	1618	155
15°	1553	1541	1511	1509	1497	438
25°	1411	1385	1339	1320	1303	650
35°	1222	1185	1123	1081	1058	765
45°	1005	957	884	827	804	776
55°	768	719	638	573	547	688
65°	525	474	392	336	317	520
75°	283	240	177	148	137	301
85°	77	49	45	42	42	88
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1631.6	1631.6	1631.6	1631.6	1631.6
2.5°	1637.6	1632.8	1618.3	1631.6	1630.3
5°	1630.3	1625.5	1609.9	1621.9	1618.3
7.5°	1618.3	1612.3	1594.2	1602.7	1596.6
10°	1601.5	1595.4	1571.3	1577.4	1571.3
12.5°	1579.8	1571.3	1544.9	1546.1	1536.4
15°	1553.3	1541.2	1511.1	1508.7	1496.7
17.5°	1524.4	1508.7	1473.8	1467.8	1454.6
20°	1490.7	1471.4	1434.1	1420.8	1408.8
22.5°	1452.1	1429.3	1388.3	1372.7	1357.0
25°	1411.2	1384.7	1339.0	1319.7	1302.8
27.5°	1369.1	1337.8	1288.4	1264.3	1247.4
30°	1323.3	1287.2	1233.0	1205.3	1187.2
32.5°	1272.7	1236.6	1180.0	1146.3	1123.4
35°	1222.2	1184.8	1123.4	1081.3	1058.4
37.5°	1172.8	1130.6	1064.4	1021.1	994.6
40°	1117.4	1072.9	1005.4	956.1	932.0
42.5°	1062.0	1016.3	944.0	892.2	865.7
45°	1005.4	957.3	883.8	827.2	804.3
47.5°	947.6	899.5	823.6	764.6	738.1
50°	888.6	840.5	762.2	697.2	671.9
52.5°	830.8	780.3	702.0	635.8	609.3
55°	768.2	718.8	638.2	573.2	546.7
57.5°	708.0	656.2	578.0	511.7	490.1
60°	649.0	597.2	514.2	450.3	428.7
62.5°	586.4	534.6	452.7	391.3	372.1
65°	525.0	474.4	392.5	335.9	316.7
67.5°	462.4	416.6	337.1	283.0	267.3
70°	404.6	352.8	280.6	233.6	222.8
72.5°	343.2	297.4	227.6	189.0	180.6
75°	283.0	239.6	177.0	148.1	137.3
77.5°	227.6	185.4	133.7	109.6	109.6
80°	173.4	136.1	92.7	86.7	84.3
82.5°	122.8	87.9	68.6	63.8	62.6
85°	77.1	49.4	44.6	42.1	42.1
87.5°	37.3	22.9	22.9	21.7	21.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)